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Cooperative Education in Physical Education: An Exploratory Study of Students' Perceptions of Co-op Experiences

by

Ralph Elliot Wheeler ©

A Thesis

Submitted to the Faculty of Graduate Studies and Research in partial
fulfillment of the requirements for the degree of Doctor of Philosophy

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Abstract

The nature of today's workplace is one of rapid and dramatic changes. Traditional workplace environments require those entering a field to possess skills and competencies that are not currently being taught in many institutions. As a result, higher educational institutions have come under increasing pressure to adjust their curriculum in an effort to meet these changes. Cooperative education has thus emerged as a legitimate alternative to the more traditional educational strategies in a number of programs. With its inextricable link to the workplace, coöperative education provides a unique blend of practical, career related experiences with formal, academic learning.

This exploratory study investigated the cooperative education experiences of university students involved in a four year physical education/recreation degree program. The study sought to examine through self-completed questionnaires, individual interviews, and a focus group session, the perceptions of students with regard to their academic and work term activities. In particular, the research project focused on: (a) academic skills and competencies developed during the cooperative program, (b) career and professional perceptions of students in the program, (c) work term experiences, (d) personal and interpersonal relationships, and (e) learning strategies and obstacles. Survey data, gathered from 96 students representing 80% of all 2nd, 3rd, and 4th year students enrolled in the program, were summarized using measures of central tendency. Interview and focus group data from students were transcribed, content analysed and organized around several emerging themes.

As a group the students described a broad range of experiences and the effect these experiences had on learning in the cooperative program. Results of the questionnaire and the interviews indicated that students perceive the cooperative program as offering a variety of opportunities for learning many

generic academic skills along with career and related employability skills required for the workplace. Other findings suggest that students in a cooperative program rely on learning strategies which are both self-initiated and collaborative in nature.

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CHAPTER 1

INTRODUCTION

Researcher's Perspective on Challenges and Changes Within Physical Education

A pedagogical model inextricably linked to experiential learning has emerged as an alternative to classroom-driven models of preparation for physical educators in the 1990s. The reason that this approach has begun to be considered by colleges and universities across the country is implicit in the challenges facing the physical education profession as a whole. Government funding cutbacks, departments of education and university faculties downsizing, school closures, and teacher cutbacks pervade the current educational landscape. Along with the changes affecting physical education, the closely allied field of recreation is also undergoing major developments. Recreation has grown into a multi billion dollar industry in North America. With a huge upsurge in fitness and leisure related programs and the move toward "user pay," there is a pressing need for workers in the field to be current, qualified, and capable. Coupled with these and other recent events, many postsecondary institutions offering physical education and recreation programs are struggling to address the implications that these changes have with respect to current professional preparation programs. For purposes of this study the term *physical education* will be taken to include the subdiscipline of recreation.

What does the future hold for physical education? What direction should institutions with physical education and recreation programs take to maintain and enhance their position as leaders in the training of professionals for the field? Indeed, what implications do these changes and challenges have for future physical educators and recreationalists in terms of career directions? The recurrent theme underlying the discussion of these questions has been, unfortunately, one of doom and gloom. Massengale (1987) made the observation that, unfortunately, many professionals prefer not to know, care, or think about the future of the discipline. He suggested that numerous physical education programs are still using traditional training curricula from the 1940s and 1950s. For many involved, the need for change is a topic too formidable to address and thus ignored. For a profession in desperate need of refocusing its priorities, this does not bode well as we approach the new millennium.

Concurring with this pessimistic view of the future, Ellis (1988) expressed the sentiment that only by requiring the physical education/recreation profession to consider the future will programs have a chance to survive. However, from his viewpoint, it is unlikely that practitioners will move beyond their preoccupation with basic survival to consider the broader issues and societal changes that are taking place at an ever-accelerating pace.

Gensemer (1995) argued that perhaps part of the problem may lie within the profession itself. He reasoned that the physical education/recreation field has to consider adopting a broader mandate, suggesting that whereas colleges and universities will continue to prepare teachers to deliver school-based activities, the physical education and recreation marketplace now involves clients who are seeking high-quality services ranging from exercise maintenance to ecotourism. Thus, physical education has to become a broad-based discipline involving numerous alterations within the original discipline, including exercise science, fitness leadership, leisure studies, and sports management, along with lifestyle- and wellness-related areas, to name a few. If the profession is to survive it must now answer to and predict the changes taking place in the new physical education marketplace. Not to respond to such a challenge is surely to invite its final demise.

Irwin and Pettigrew (1993), in a series of interviews with Massengale, Ellis, and several other authoritative researchers in physical education, optimistically concluded that "even though the forecasts for physical education can be construed to be negative, the profession can again become a necessary part of education and society" (p. 174).

Clearly, the role of physical education/recreation in the 1990s is one of change and challenge. The ability of the profession to survive and prosper in the future is dependent on its ability to change to meet these challenges. The educational reforms sweeping the country and the trends in wellness and lifestyles suggest that the nature and role of physical education/recreation will continue to be refocused and reshaped, perhaps by forces beyond our grasp.

With characteristic foresight, Wuest and Bucher (1995), two leaders in the field of physical education, urged the profession to become more assertive in an effort to strengthen its position in today's world. They emphasized that the profession must take a more active role in creating its own future and reshaping its destiny. They suggested that physical education must take a more proactive rather than reactive stance in dealing with the issues and challenges that are confronting the profession.

Oberle (1988) in his discussion on the future direction for health, physical education, recreation and leisure, and dance, went on to suggest that the profession must start to develop programs and services that meet the changing needs of the times, yet still have the flexibility to include other opportunities as they occur.

His position was shared by a number of other authors, notably Massengale and Hellison (1987), who took the view that physical education must change for the sake of its survival. They strongly urged the profession to deal immediately with all of the newly emerging issues, fads, and trends. Several ways to accomplish this may be through a more holistic preparation program for physical education/recreation and by forging closer alliances with relevant industries and work environments to capitalize on these developments and opportunities.

What this points towards, argued Gensemer (1995), is the need for a new direction in professional training programs, one in which the students' preparation for entry into the work force is based on a wider range of career choices and experiences and a greater awareness of emerging trends.

In summary, institutions offering programs in physical education/recreation are under increasing pressure to make significant changes to their programs and to adjust their educational strategies. One educational strategy that is gaining acceptance among professional educators as a possible remedy to the problem is the adoption of a curriculum built around experiential learning and the world of work—a cooperative education program. It is within this context that the proposed research study is situated.

Research Setting

The proposed study focused on a cooperative physical education program at an eastern Canadian university. The program, implemented in 1992, has been in existence for six years. It reflects a co-op model similar in design to several other established co-op programs currently in operation on the university campus, including those in the Faculty of Engineering and the Faculty of Business Administration. The essence of the cooperative model of education is the integration of academic study and classroom theory with workplace experiences. This practical workplace experience, interwoven with academic study, is considered to be a vital component of the current cooperative physical education program.

Development of a Cooperative Physical Education Model

Early in 1990 the commitment to a cooperative program was made, and steps were taken for implementation in 1992. A committee was formed, consisting of faculty members, local physical educators, recreationalists, representatives of the Faculty of Engineering and the Faculty of Business Administration, and the director of cooperative education for the university. The committee's task was to outline a new program that would strengthen the school in terms of the ability of its graduates to compete for employment opportunities anywhere in the country, as well as to meet the crucial local needs in physical education and recreation.

Experienced leaders in cooperative education at other universities were consulted and provided guidance to the committee. With the majority of the faculty committed to the new model, program details, including curriculum and scheduling changes, were finalized and submitted for approval to the Board of Governors of the university. Following formal approval of the program, a full time co-op coordinator was appointed, and the first students were admitted to the new program in September 1992.

The *University Calendar* clearly defined the mission statement of the School of Physical Education and Athletics with reference to the cooperative program:

> It is clear that future trends in our society towards increased leisure time and personal responsibility for balanced, healthy lifestyles will require professionals in the field of physical education/recreation who are prepared to initiate and operate a wide variety of programmes to meet these needs. (p. 261)

The objectives of the work terms were also outlined:

> During work terms students are brought into direct contact with the physical education/recreation profession, exposed to actual practical problems, expected to assume ever-increasing responsibility in employment as their education advances, and introduced to experiences far beyond the scope of those which could be provided in the university. The experiences should provide maturing prospective graduates with an

> early appreciation of personal, social and economic aspects of physical education/recreation through direct association with professionals in a work environment. Much of the experience gained in this type of programme would not be available to students until after graduation, in a conventional programme. This experience makes a significant contribution to their total education. (*University Calendar,* (Memorial University of Newfoundland, 1997-1998, p. 261)

The cooperative physical education program currently consists of six academic terms and four work terms, whereas the recently revised cooperative recreation program consists of seven academic terms and three work terms. Both programs offer an honors degree for students with superior academic levels of achievement, consisting of additional courses beyond those normally required for the undergraduate degree. The program is offered only to full-time students.

Approximately 50 students are accepted into the program each September following an initial year of university study, during which time students are required to complete a prerequisite number of courses and to achieve a minimum average of 55%. Because this is the only program option for students wishing to pursue a career in physical education/recreation in the province, and because enrollment is limited, competition for acceptance into the program is strong. Students transferring from other faculties or institutions can be given advanced standing upon admission into the program and may have prior work experience accepted for credit.

The academic terms and work terms are scheduled alternately, following two initial academic semesters of on-campus study. Work-term placements are coordinated through the co-op office. A major role of the co-op staff is to assist students in securing job placements for their work terms. Co-op staff also assist in contacting prospective employers, posting positions, and setting up interviews. However, students are strongly encouraged to seek out their own work-term arrangements.

There are as many as two classes on work term each semester involving between 60 and 80 positions. These positions are relatively easy to find during the summer semesters because of numerous summer recreation and sport programs sponsored by communities throughout the province. Students on work terms in the fall and winter semesters have a more difficult time finding paying positions because jobs are very much seasonal in nature. To date, students have been placed in a variety of work-term experiences reflective of the diversity of the physical education/recreation field. Even though few positions have been found in the formal teaching setting, positions in fitness and leisure services, health care, and community recreation and sports programs are among the more common placement opportunities available to students. The vast majority of these placements are found within the province; however, students have had work-term positions in such areas as Central and Western Canada, North West Territories, United States, Bermuda, Scotland, and England.

The program has undergone a number of changes to the curriculum since its implementation. These changes reflect a desire among faculty and co-op staff to provide as relevant and worthwhile a program as possible for students.

There are a number of reasons for delimiting the study to this particular setting. First, the cooperative physical education program has been in existence for the past six years, during which time two classes have graduated from the program. It is perhaps more beneficial to undertake a study of the current program at this stage rather than earlier as an accurate picture of all aspects of the program may only now be emerging. Second, the program has recently been revised to distinguish more clearly the cooperative degree in the area of recreation. The revised program puts a great deal of emphasis on the business and marketing aspects of recreation. Any research undertaken at this point would be particularly relevant to this new thrust within the cooperative program. Third, this site was selected because of the researcher's position within the setting. As a tenured faculty member, the researcher had unlimited access to the research site during the time required to complete the data collection. As well, the familiarity of some 14 years of teaching in the research setting allowed for more breadth and depth in the research, thereby improving the validity of the overall study. Last, on a personal level, it was my hope, as a teacher educator, advisor, and sometime mentor to the students in this program, to come away from this experience with a better understanding of the processes involved in becoming a physical educator and to use this knowledge to help guide my own teaching practices.

The university in which the study was conducted has an enrollment of approximately 20,000 students. Located in the capital city with an area population of over 150,000 people, the university is the only degree-granting institution in the province. The School of Physical Education and Athletics is a relatively small teaching unit on the campus and, although operating independently of the much larger Faculty of Education, maintains a close liaison with it. Administratively, the program functions under the leadership of a director who is directly responsible for both the academic faculty and the co-op staff. Academic faculty and co-op offices are located in the same building, and co-op staff and teaching faculty have a close working relationship.

The current physical education/recreation facilities are considered to be somewhat limited, having been constructed in 1962 to service a student population of just 3,000. Nevertheless, the present physical education facilities accommodate not only the co-op program, but the general student population as well in a wide variety of campus-related activities, including intramural, varsity athletics, and general recreation. Consequently, the lack of adequate facilities has restricted the scope of the curriculum in a number of areas. The university is currently in the planning stages for the construction of a multi-million-dollar field house which will alleviate many of the concerns associated with the need for more modern facilities.

Purpose of the Study

The major purpose of the proposed study was to portray and describe the perceptions of physical education/recreation students involved in a cooperative (co-op) program of study. Specifically, the intent of the research was to elicit the perceptions of students with regards to their experiences during the academic semesters and the work terms in an effort to more clearly understand and articulate how these experiences influenced students' learning. A further purpose of the study was to provide information from the students' perspectives to program stakeholders which may be of benefit with respect to implementing future strategies for improving the academic curriculum and work-term experiences for students.

Therefore, the proposed dissertation entitled *Cooperative Education in Physical Education: An Exploratory Study of Students' Perceptions of Co-op Experiences* sought to investigate the understanding or perceptions of students toward the learning that occurs and the skills that are developed in a cooperative education environment. According to Weber (1990), our perception of the world around us is based on a combination of circumstances, events, past experiences, personal values, and needs. As such, we all perceive things a little differently, and because our perceptions become our reality, we tend to believe what we perceive. Greenberg (1994) described perception, unlike more abstract constructs, as the process that individuals use to become aware of, interpret, and organize information through their senses. Perceptions are influenced to a large extent by an individual's characteristics such as emotions, attitudes, imagination, and maturity (Sankar, 1994). The way in which students interpret their experiences and events defines their sense of reality. For students involved in a cooperative education program, the learning that occurs is often filtered through this sense of reality.

In the context of the larger research question a number of subquestions were also considered:

1. What are the perceptions of students regarding the nature of the learning that takes place in a cooperative physical education/recreation program?

2. What are the underlying perceptions of students toward the acquisition of professional, career-related skills?

3. Do students perceive the work-term experience as an opportunity to operationalize their current academic knowledge as well as to gain other knowledge and skills useful to their career choice?

4. What are the perceptions of students regarding the relationship between formal (academic) learning and informal (work-place) learning?

These questions were provisional in nature and were not intended to limit the depth or scope of the research nor to exclude other questions and issues from being considered. Because this study was primarily exploratory in its approach, these questions served as a point of departure from which the research took its initial focus.

Significance of the Study

Basic to any academic program is input from, and support of, the individuals for whom the curriculum is developed. This involvement is necessary in the developmental stages of a program, during which considerable financial resources, staff and faculty support, and institutional backing are initially committed. This input is just as essential, once the program is established, for providing a framework to help determine whether the program, and the effort to maintain and support it, are justified. Thus, the need to undertake research, document formally, and articulate those processes involved in the theory and practice of the program is imperative.

The present study grew out of the researcher's involvement as a faculty member in a cooperative physical education program at an eastern Canadian university. Implemented in 1992, the program was one of just several of its kind in Canada to offer an undergraduate degree through a cooperative education model. Six years later the program has grown to include a cooperative program for students seeking a degree in the field of recreation. There is a strong consensus among faculty, co-op staff, and students that the program is a credible alternative to the former, more traditionally based program. In fact, anecdotal accounts support the claim that graduates of the program appear to be better prepared and more highly skilled and trained in a number of areas within the physical education discipline than graduates from previous years were.

Despite the opinions and testimonials of those involved supporting the usefulness of the program and the many benefits associated with it over the past six years, no formal inquiry has been undertaken to examine the cooperative experience in terms of its teaching pedagogy or methodologies and to investigate more extensively an exploration of what is learned, how it is learned, and where it is learned. The present study endeavored to collect and interpret the views of those who have most at stake in the cooperative process—the students. The desired outcome of an exploration of the perceptions of these students was to gain a deeper insight into the learning process and to contribute in a more formal context to a clearer picture of what the cooperative experience is like for physical education students.

Few studies have been reported in the published literature to date on the relationship between cooperative education experiences in physical education and the nature of the learning that occurs through this experience. The paucity of such literature reflects the fact that research in this area of higher education is still in its infancy. The few research efforts that have been completed to date have generally dealt with the outcomes and benefits of participation in a cooperative program. Little in the way of qualitative research has been completed on the learning processes of students that lead to these outcomes.

The lack of available research related to cooperative physical education programs led in part to this particular research effort. The findings of this project could not only benefit the program under study but may also benefit other physical education/recreations institutions considering implementing a cooperative component into their program. Moreover, the study identified critical components of the cooperative experience which may be of interest to other researchers involved in cooperative education and experiential learning.

Assumptions, Limitations, and Delimitations

Assumptions

A number of assumptions were made in this study.

1. The opinions and perceptions of the focus-group participants were assumed to be representative of the research population

2. The research participants were aware of and knowledgeable about the learning that occurred in the formal academic setting as well as in the work-term environment.

3. It was assumed that respondents were motivated to engage in the reflection necessary to complete the research questionnaire accurately and honestly.

4. The methods of data collection employed in the study were an adequate means of investigating the research questions, and the questionnaire, the focus-group discussion, and the semistructured interviews were valid and reliable tools for gathering both quantitative and qualitative information.

5. The data analysis methods used in the study accurately reflected the responses of the research participants.

Limitations

1. The study was limited by the nature of the methodology which collected data in a relatively short time period. The data represent, in essence, a snapshot of the cooperative program which is therefore contextually and temporally bound.

2. The use of work-term reports initially intended for providing documented information about students' work experiences were not suitable for that purpose because those submitted to the researcher consisted mainly of technical documents unrelated to critical self-reflection.

3. There was no attempt to generalize the research findings beyond the population studied to students in other cooperative physical education programs.

4. This was not a comparative study and therefore did not show whether student perceptions in this cooperative program were significantly different from the perception of co-op students in other programs or of non-co-op students.

5. A number of other limitations were inherent in the data-gathering process. These included participants' nonresponse to some of the open-ended questions on the questionnaire, the likelihood that some of the respondents may have misinterpreted some questions, and the possibility that research

participants would have been under time constraints which may have affected their responses on certain sections of the questionnaires.

Delimitations

1. The research study was delimited to obtaining information from one university cooperative physical education/recreation program.

2. Only undergraduate physical education/recreation students currently enrolled in the program with at least one work-term experience were asked to participate in the study.

3. The study, descriptive and qualitative in nature, focused upon the collection of data from co-op students about their experiences in the program, while recognizing that many others may also represent significant sources of data, such as former graduates, co-op coordinators, employing agencies, work-term supervisors, and professors.

4. The researcher-developed questionnaire was organized around six broad categories related to co-op experiences. The perceptions of participants were therefore limited to these six categories.

Organization of the Thesis

The purpose of the study was briefly introduced in this chapter, along with a description of the research setting, the significance of the study, a statement of the research problem and subproblems, and the definitions of significant terms used in the study.

The relevant literature on cooperative education is reviewed in Chapter 2. Chapter 3 examines the research design and methodology of the study, while Chapter 4 presents the data collection and results. The findings and results are discussed in Chapter 5 and the summary, conclusions and implications for further research are presented in Chapter 6.

CHAPTER 2

REVIEW OF THE LITERATURE

The following literature review provides an overview of the theoretical framework of experiential education, traces the developments of cooperative education and its role as an emerging academic model in North America, and presents a number of cooperative models in existence in postsecondary institutions. The literature review also outlines the current research base in cooperative education. Following that, a review of the research specifically dealing with cooperative programs for physical education and its related disciplines is given.

Experiential Learning: An Overview

As with any phenomena, a considerable variety and range of definitions have been developed for the term *experiential learning*. Indeed, the literature has been replete with writers who felt obligated to offer their conception of experiential learning in order for readers to interpret their particular view or theory related to experiential learning. For example, Henry (as cited in Weil & McGill, 1989), catalogued 52 definitions of experiential learning from those teaching in colleges and universities in such areas as agriculture, nursing, business, art, language, education, and other fields. She suggested that, whereas the term is often used to convey different purposes, meanings, and practices, there is a need for a common language to make sense of the diversity within the field. Although many people may argue that all learning can be considered experiential, for purposes of this research, experiential learning will be taken to mean that mode of learning

> in which the learner is directly in touch with the realities being studied. It is contrasted with learning in which the learner only reads about, hears about, talks about, or writes about these realities but never comes in contact with them as part of the learning process. (Keeton & Tate, 1978, p. 2)

Consequently there may be a strong element of truth in the often-mentioned Chinese proverb:

> I hear and I forget.
> I see and I remember.
> I do and I understand.

In fact, the very essence of all experience-based education may lie in this ancient saying, as the central tenet to the learning process in experiential models of learning is the belief that experience and practice are at the very root of all learning. Experiential learning, although often described as "the most pervasive form of learning in society," has tended to be devalued by educators in the past and regarded as somehow fundamentally inferior to those organized forms of knowledge which have been constructed as subjects or disciplines" (Weil & McGill, 1989). Today the world of learning is changing rapidly, driven by the realization that intellectual-based education and experiential learning are equally valued for what they may contribute to the enrichment of the learning process (Boud, Cohen, & Walker, 1993).

Much of the theoretical framework for the study of experiential-based learning is found in the work of John Dewey, William James, and Alfred North Whitehead. Arguing against mainstream Western thought, which had long dismissed the importance of experience, eschewed "naive realism," and endorsed the "scientific" view of experience, these early educationalists sought ways of understanding the "rich history of ordinary experience" (Reed, 1996, p. 11). Although James was perhaps the first important philosopher to advocate the value of everyday experience for learning, it was Dewey (1938) who took up the call and gave the value of experience a theoretical and philosophical defense. For Dewey, the concept of experience was more than simply an activity which happens; it was an event which had some meaning to it and was able to be interpreted, an event which served to broaden and deepen one's thinking. Experience is thus an activity embedded in a potentially lifelong process of learning (Reed, 1996). Dewey went on to caution against the assumption that all experience may be perceived as educative:

> The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative . . . some experiences are mis-educative . . . any that has the effect of arresting or distorting the growth of further experiences . . . engenders callousness . . . produces lack of sensitivity or responsiveness. . . . Everything depends upon the quality of the experience which is had. (p. 25)

The relevance of Dewey's analysis of education and his educational philosophy and theories regarding the importance of experience are still astonishingly current. It was his view that "traditional or teacher-centered" approaches do little to encourage learners to become self-directed and self-responsible, whereas a "learner-centered" approach provides opportunities for first-hand experiences which lead to meaningful learning and growth. As a result, "skills are not acquired by drill and rote memorization but by activities that the learners, with the aid of educators, employ to serve their interests and needs" (Marjoribanks, 1991, p. 90).

Dewey's (1938) views on the overriding importance of experience to learning were echoed by a study group sponsored by the National Institute of Education (as cited in Laubscher, 1994). In a report on the conditions of excellence in American higher education, they contended that

> there is now a good deal of research evidence to suggest that the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement. (p. 5)

The study group further advised those professionals in the field to involve students more extensively in "research projects, in field classes, in internships, and in other forms of carefully monitored experiential learning" (p. 5).

The work of other educational theorists, such as Jean Piaget (1973), Marie Montessori (1964), Jerome Bruner (1966), and Carl Rogers (1969), dovetailed well with Dewey's (1938) views on the overriding importance of experience. Models of instruction developed by these authors share principles with Dewey's and are similar in their focus on the learner's active engagement in discovering important principles from practical examples. According to Piaget, the acquisition of productive learning, understanding, and creativity consists of discovering or rediscovering through carefully designed educational settings involving active experimentation and problem solving. From a somewhat different perspective, Montessori and Bruner both emphasized learning through the use of various guided-discovery methods in which the learner is able to test concepts and hypotheses in a carefully structured and equipped physical environment. By contrast, Rogers (1969) endorsed a broader view believing that learners in a learner-centered, experientially based program should participate responsibly in the process. Further, he argued, this includes making choices about resources and problems and living with the consequences of those choices. What is central for all of these educational theories is the focus on the learner's autonomy and control, on the one hand, and the relevance to events and activities in the real world, on the other.

A Model of Experiential Learning

Although a number of models of experiential learning exist, by far the most popular model appearing in the literature was the cyclical model developed by Kolb (1984; as cited in Boud, Keough, & Walker, 1985) based on the philosophy which viewed experiential education as the process of creating knowledge through the transformation of experience (see Figure 3.1). Kolb's approach differs from other learning models in that it emphasizes the importance of experience in the learning process. He posited that to be effective, a "learner needs four different kinds of abilities which correspond to the four stages of his learning cycle: concrete experience abilities, reflective observation abilities, abstract conceptualization abilities and active experimentation abilities" (p. 12). This approach offers an appealing theory of experiential learning whereby the learning cycle, which begins with concrete experiences, can be assimilated into concepts and constructs through a reflective process. These concepts and constructs can in turn be used to develop new theories upon which to change behavior consciously or to interpret situations and events which comprise the learning environment.

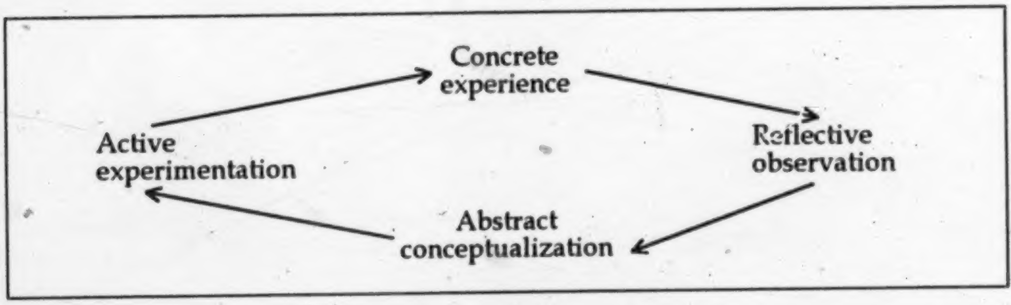

Figure 3.1. The Kolb experiential learning cycle (Boud et al., 1985).

The model is not without it shortcomings, however. As Whitaker (1995) pointed out, "One of the disadvantages of the cyclic model is that it constantly turns in upon itself, whereas in the reality of classroom life the cycle repeats itself with new material each time a new experience is encountered" (p. 13). His proposed model (see Figure 3.2) distinguishes between incidental experiential learning and learning which is managed deliberately in such a way as to provide opportunities to engage in the reflective process. This critical reflective process helps the learner make "sense of past experience and to consider appropriate changes and developments for the future" (p. 14).

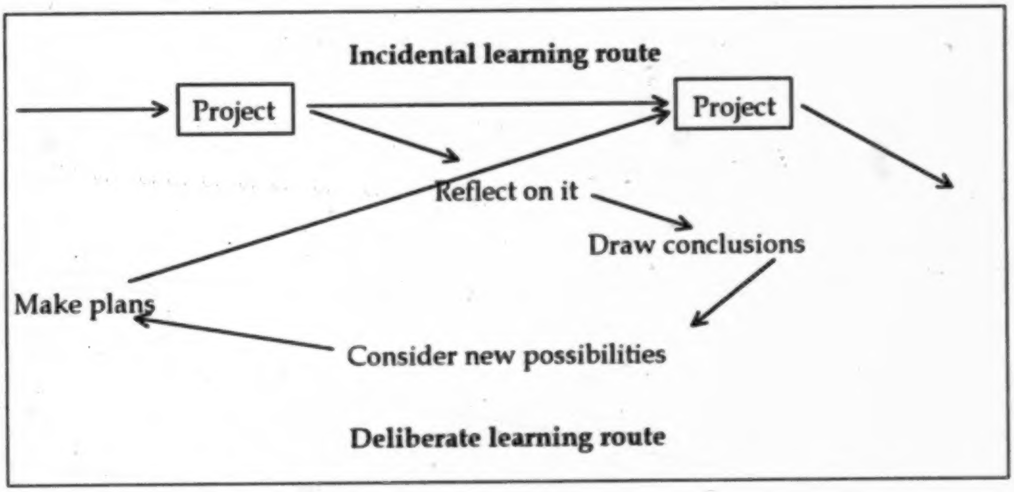
Incidental learning route
Project
Project
Reflect on it
Draw conclusions
Make plans
Consider new possibilities
Deliberate learning route

Figure 3.2. The deliberate learning cycle (Whitaker, 1995).

A number of other authors have modified or expanded Kolb's (1984; as cited in Boud et al., 1985) model as well. Although most of these models choose to focus on particular aspects of the various stages of the model, there was agreement in each that stressed a learner's personal involvement in a "doing" role as opposed to merely a "knowing" one.

The educational model under study in this research project is reminiscent to a large degree of this concern for the value of personal experience. Experiences such as those found in the cooperative education approach provide opportunities for learning that are active, meaningful, and relevant to real life agendas.

Definition of Cooperative Education

The National Commission for Cooperative Education (1995) defined *cooperative education* as

> a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student's academic or career goals. It provides progressive experiences in integrating theory and practice. Co-op is a partnership among students, educational institutions and employers, with specific responsibilities for each party. (Young & Young, 1995, p. 1-10)

The underlying premise upon which cooperative education is built is the specific preparation of students through a partnership between the educational institution, the business community, and industrial establishments.

Although the most prevalent title given to this process is cooperative education, a number of other names appear in the literature. These usually have somewhat similar goals and characteristics and may be considered under the rubric of *experiential education*. They include work-study programs, alternance training, work simulation, and sandwich programs, to name but a few. Regardless of the title attached to the process, each program draws on the basic philosophy that the work experience is an integral part of the curriculum.

It is perhaps appropriate to point out at this juncture that, as is the case with most attempts to define a term or concept, the "accepted" definition usually depends very much on the approach of those using it and is always open to interpretation. However, there will be no attempt to engage the reader in the long-standing academic discourse found in the literature with respect to the adequacy of the various definitions of cooperative education. Accepting the fact that there is a range of similarities and differences among many of the available definitions of cooperative education, for purposes of this research the definition advanced by the Canadian Association for Cooperative Education (CAFCE) in 1995 will be utilized (Young & Young, 1995).

CAFCE defined cooperative education as

> a program which formally integrates a student's academic studies with work experience in cooperative employer organizations. The usual plan is for the student to alternate periods of experience in appropriate fields of business, industry, government, social services, and professions in accordance with the following criteria:
>
> (i) each work situation is developed and/or approved by the cooperative educational institute as a suitable learning experience;
>
> (ii) the cooperative student is engaged in productive work rather than merely observing;
>
> (iii) the cooperative student receives remuneration for the work performed;
>
> (iv) the cooperative student's progress on the job is monitored by the cooperative educational institute;
>
> (v) the cooperative student's performance on the job is supervised and evaluated by the student's cooperative employer;
>
> (vi) the total cooperative work experience is normally fifty percent of the time spent in academic study, and in no circumstances less than thirty per cent. (pp. 1-11)

Clearly, the underlying philosophy here is one which sees cooperative education as a unique system of learning, where the primary focus is the preparation of graduates for the real world of work.

Historical Overview of Cooperative Education

Although formal cooperative education programs began in the early 1900s, forms of experiential education such as internships and practica have existed for centuries (Hays, 1994). The contemporary period in the history and development of cooperative education, however, began in the United States in 1957. In May of that year, following a conference attended by representatives of 80 colleges and universities and 100 industrial and business firms, a two-year national study was commissioned to assess the implications of cooperative education (Knowles, 1971). The major findings of the study concluded that "cooperative education has important values for colleges and universities, for students and employers. These values should be given wide publicity and cooperative programs in American higher education should be greatly extended" (p. 14).

The National Commission for Cooperative Education (1971), created in 1962 under the chairmanship of Ralph W. Tyler, was given the mandate to "assist institutions in the establishment of cooperative education programs and to promote and distribute information relevant to cooperative education" (p. 15).

By 1971 more than 235 colleges and universities in the United States and six institutions in Canada were offering cooperative programs in a number of disciplines ranging from engineering to physical education (Knowles, 1971).

Cooperative education, since those early developments, has continued to expand in Canada (Hilliard, Pearson, King, & Young, 1995). The developments in Canada have paralleled those of the U.S. in many ways, including the establishment of an umbrella organization similar to the Cooperative Education Association Inc. (CEA), the professional body representing cooperative education in postsecondary institutions in the United States. Incorporated in 1976, the Canadian Association for Cooperative Education (CAFCE) was formed to act as a forum in which "educators could unite to assist one another, foster high quality education and develop a unified approach to better serve employers" (LeBold, Pullin, & Wilson, 1990, p.7). Today CAFCE represents over 80 educational institutions, with membership from all regions of the country. These institutions offer academic programs to more than 4,200 cooperative students over a wide spectrum of disciplines, with the exception of the medical, theological, and law professions. The major fields embracing cooperative education are engineering, business, administration, and the sciences.

Given the rapid changes taking place in the economy and the need to adjust and adapt to these market-place changes, the role of cooperative education with its ability to provide a flexible curriculum will likely continue to grow. Over the past two decades, the increasing awareness of the importance of creating better links between the world of work and the educational institutions responsible for training workers for that world has led to the expansion of cooperative programs over the full educational spectrum. Cooperative education is now found in various forms, from high school work/study programs to university doctoral programs.

From the overall perspective of those who support cooperative education as a worthwhile alternative, the literature has been replete with reports and research articles that have pointed to the benefits of cooperative education for the student, the institution, and the employers. Most recently, authors such as Foster, Franz, and Waller (1986), Krebs (1989), Dawson (1989), Fletcher (1989), Weisbord (1990), Laycock, Hermon, and Laetz (1992), Williams, Sternberg, Rashotte, and Wagner (1993), Dubick, McNerney, and Potts (1996), and Apostolides and Looye (1997) have reported on the benefits and positive outcomes of cooperative education for the various stakeholders involved in the process.

Those critical of the cooperative approach to education most often cited philosophical differences for their position, claiming that the fundamental mandate of a university is to "educate" students and not to "train them for a job market." This position is steadfastly supported in the controversial book *The Great Brain Robbery: Canada's Universities on the Road to Ruin* by Bercuson, Bothwell, and Granastein (1984). Others opposing the implementation of such a program contended that students can receive a quality education under the current programs without the additional costs and resources required to run a cooperative program.

Cooperative Education Models

In examining the literature, it is evident that a variety of models of cooperative education exists in Canada and the United States. These include one- to five-year programs in high schools, junior colleges, and universities; company-based programs; and other variations found in training institutions. Although most models embrace many of the elements of the traditional goals of cooperative education, the curriculum of each program is based on the particular goals of the institution. Seven of the more common models of experiential education are outlined by Young and Young (1995) in their book *Education in Overdrive: The Management of Cooperative Education and Internships.* These include (a) apprenticeship, or the practical learning found in the trades and crafts industry; (b) graduate-in-training, which refers to programs in larger companies requiring new graduates (such as engineers) to complete a further period of training under the supervision of a qualified professional; (c) clinical practice, typically found in the medical and health professions; (d) field placements, which are frequently associated with the field of social work; (e) internships, a form of experiential education used in many disciplines which may involve one or more placements with the same employer; (f) sandwich programs found in Britain and other parts of Europe, in which the employment phase of one day to six months or longer is "sandwiched" between the academic program; and (g) student teaching, the universal component of teacher training (pp. 1-9).

The cooperative program for physical education/recreation students is to be distinguished from the student teaching or field placement experience of education students. Whereas the co-op experience is a blending of theoretical instruction with regularly scheduled employment in the community, the student teacher practicum is typically undertaken as a culminating experience prior to the student's graduation. The major difference is the cumulative nature of the co-op experience over a four-year period, whereas the education practicum is a more summative experience.

The cooperative education model in Canada, described by LeBold, Pullin, and Wilson (1990), was developed by individuals with experience in sandwich education programs in Britain and co-op programs in the United States:

> The pattern of work and study at virtually all of the co-op institutions in Canada is based on the four-month cycle. In the majority of the university based programs, the students have five or six work terms of four months each and at the community college level most programs include three or four work terms, all of four months duration. (p. 11)

Research in Cooperative Education

To date, most of the research in cooperative education has been dominated by an outcomes approach driven by the practical need of professionals in the field to identify and assess the values and benefits associated with participation in these programs (Fletcher, 1989). The methodologies used in identifying outcomes have been largely applied-descriptive in scope and have continued to rely heavily on survey techniques and causal-comparative approaches. Although the findings of these types of inquiries are not in dispute, there is concern that the current literature has not, to date, addressed other significant questions or previously unexamined aspects of the cooperative experience. Consequently, the research in cooperative education, in the opinion of a number of professionals, has failed in many respects to produce a broad base of research which outlines clearly the theoretical frameworks and key propositions related to the cooperative education process. Only recently have researchers begun to explore the nature of this learning process that occurs and to examine other perspectives which may contribute significantly to the overall educational theory of cooperative education.

A number of other underlying issues and concerns have also been identified with respect to the research on cooperative education. Cooperative education professionals have suggested for some time that the research base needs to be more broadly disseminated if it is to gain a greater legitimacy as an emerging discipline. They have noted that the available sources of published research in the area of cooperative education appear to be somewhat limited. In fact, the vast majority of research completed can be located in one source, *The Journal of Cooperative Education* (Wilson, 1997). Bartkus and Stull (1997) concurred that, although it is the pre-eminent journal for research conducted in the area, a review of the past five years revealed that research articles and reports appeared in a number of other scholarly publications as well, including *The Journal of Education for Business, The Journal of Industrial Education, The Journal of Chemical Education, Computer Science Journal,* and *The Journal of Career Development.* Research articles and position papers on cooperative education have also appeared in the following publication outlets: *Journal of Experiential Education; International Journal of Physical Education; Journal of Sport Management; The Delta Pi Epsilon Journal; Canadian Association for Health, Physical Education, Recreation, and Dance Journal; Journal of Physical Education, Recreation, and Dance;* and *The Journal of Career Planning and Development.* Although these publications have a relatively small flow of cooperative education articles, it does indicate that cooperative education research has some interest and legitimacy beyond the boundaries of the general discipline.

A second related and perhaps more pressing concern to those interested in enhancing the research base in cooperative education is the recent decrease in the number of research projects being produced and published. Heller (1989), in a content analysis of the research appearing in the *Journal of Cooperative Education* from 1964 to 1986, revealed a significant decrease in the published research over the second half of the period analyzed. It is anticipated that this trend will change over time as more institutions increase funding for research grants and the number of studies at the doctoral level continues to gain momentum.

A third issue of general concern pertaining to the research in cooperative education is the notion that the research to date has "fallen short of the ideal scientific inquiry" (Wilson, 1988), that "very little theory has been developed" (Ricks et al. 1990, p. 11), and that "much of the research is inconsistent" (Loken, 1996). Whereas these reactions to the research are not without merit, they need to be considered from the perspective that cooperative education is an emerging educational discipline. The research may indeed look "sketchy" and "limited" when compared to other, more traditional branches of education such as sociology, psychology, or curriculum studies. However, in its short research history, cooperative education compares very favorably with the quality and quantity of research found in such similar educational areas as student counseling, career services, and financial aid (Bartkus & Stull, 1997).

A fourth explicit concern is the focus that research in cooperative education has taken. This research may be described as applied-descriptive and evaluative in scope. Without any strong theoretical underpinnings, the research has continued to examine such areas of the curriculum as program development, administrative practices, benefit to the co-op partnerships, attitudes toward co-op, program outcomes, and the impact of co-op participation on students, graduates, and employers (Bartkus & Stull, 1997).

In a recent review of the research, Wilson (1997) observed that "much of the research, although not all, continued asking the basic question, does cooperative education have merit?" (p. 17). He cited 60 reports in *The Journal of Cooperative Education* since the mid 1970s which take this question as the main postulate and examine the field in terms of its value to students during the time they are in the program and following graduation.

A final concern related to the literature is the general lack of research being conducted by those currently working in the field of cooperative education. Finn (1997) suggested that one reason for such a dearth of research, theorizing, and critical analysis is the "perception that research needs to be formidable, flashy, and funded or it has no value" (p. 36). She further suggested that co-op practitioners use theory and make observations on a daily basis, but what is needed is to formalize the process and to engage in a critical dialogue that could contribute to the sharing of the research findings.

Clearly, research in cooperative education is at an emerging stage of development. As a relatively new area of study, it will continue to mature and seek its unique place within higher education. The challenge that researchers in cooperative education face as they move toward legitimacy in the education community is to forge a program of research which is systematic and which serves to illuminate both the theory and practice of the field.

Cooperative Programs in Physical Education/Recreation

As noted previously, cooperative education programs have grown rapidly over the past 20 years in Canada. By 1987, 60 educational institutions were actively engaged in offering cooperative education programs in many academic disciplines (McCallum & Wilson, 1988). This number had grown to 81 by 1990 (LeBold, Pullin, & Wilson, 1990). Cooperative programs, although strongly represented in engineering, computer science, business and public administration, architecture, and the mathematical and scientific areas, are still weakly represented in the humanities and social sciences (Ellis, 1987).

Despite the literature emphasizing the benefits and predicted growth of cooperative education, the adoption of the model is slow among institutions offering programs in the area of physical education/recreation. However, several scholarly journals and periodicals have published articles in which the authors encouraged and supported a cooperative approach for various subdisciplines of the physical education/ recreation field. Stenlund and Turner (1989), in one such article entitled "Preparing Future Teachers and Coaches: A Cooperative Experience for Pre-Service Physical Education Specialists," described a cooperative project intended to give preservice teachers practical experience in the school system. The experience was designed to enable physical education students to assist in organizing and coaching school athletic teams under the supervision of a teacher/mentor-coach. The "Coach Assist" project was deemed a success by the participants, with students acknowledging the value of the practical coaching experience. The cooperative nature of the project served to broaden the perspectives of the participants and was seen as a positive step in the preparation of future physical educators and coaches.

Barrett (1989), in a paper on a cooperative venture in leisure studies published in the *Journal of Cooperative Education,* described a number of strategies used to increase appropriate placement opportunities for students in the recreational industry. Strategies included surveys of students and employers to determine interests, as well as the development of a master mailing list and database of potential employers. Three years after the project was initiated, the number of available placements increased from 15 to 160. The students worked in areas such as therapeutic centers, resorts, conservation groups, employee recreation, and professional sports promotion, which is reflective of the diversity within the recreational field. This project demonstrated the feasibility of using targeting strategies as a method of employer development. More important, it demonstrated the support that is available in the recreation industry for the provision of career-related cooperative opportunities for students in recreation and leisure studies.

Sutton (1989), writing on the role of internships in sport management, revealed similar strategies of employer recruitment for cooperative programs. Emphasis on the development of a marketing plan designed to inform target organizations about the program, the development of an alumni network, and the setting of standards for internship performance were some of the suggestions which might assist in developing employment opportunities for student in sport management programs.

From a related perspective, Chouinard (1993) suggested that internships in sport management are a vital component of the program, and their importance must be enhanced. Obstacles and challenges to the implementation of cooperative programs must be resolved. Universities need to recognize the value of internships by providing proper financial and technical assistance, along with sufficient human resources to support such programs fully. He concluded that faculty need to take the lead to bring about changes necessary for enhancement of the internship component in professional preparation programs in sport management.

Taking a leadership role in physical education, Glasso and Weese, (1988) described the development and implementation of a cooperative education program for physical education at a Canadian university. In outlining the benefits of instituting such a program, they noted that the advantages far outweigh the disadvantages. Defending their position against the usual philosophical differences, scarce resources, and cost-benefit analysis arguments of those opposed to the program, they suggested that cooperative programs, although not a panacea for all institutional problems, have the capacity to benefit and reward all stakeholders, including the students, the faculty, the university, and the co-op employers.

In a more recent study designed to describe the current and anticipated future of cooperative education in physical education, Weese (1994) conducted a survey of 38 Canadian universities offering programs in kinesiology/physical education. A questionnaire sent to the Deans/Directors of those programs sought their perceptions on cooperative education programs. The Deans/Directors were asked to respond to four general areas: (a) appropriateness and future of co-op in physical education, (b) plans for the implementation of a co-op program, (c) perceived opportunities and barriers in implementing a program, and (d) perceptions about the future growth of cooperative education in this particular area of study (p. 68). Of the 31 respondents, 7 reported that they offered a co-op education program under the study definition of "a designed educational process that blends career-related, paid work experience with traditional classroom experiences" (p. 68). Eight universities had some form of experiential learning such as internship programs or volunteer service as part of their program requirements. Twelve of the 31 universities indicated that they did not have a cooperative component in their program and had no immediate plans to implement one.

Faculties with cooperative education programs noted several major advantages of the program. Chief among these were that the co-op programs attracted more and better applicants, provided more effective monitoring of student preparation, and helped establish more effective liaison with community and employer sectors. The challenges included increased fiscal and human resources costs, securing appropriate placement opportunities, and balancing student and faculty workloads.

Faculties that did not have a co-op program offered the following reasons: conflict with co-op's philosophy of job/training/preparation, preference for maintaining a research orientation, too much work and too few resources, inertia in the system, and the need to improve the current program before integrating students with the workplace.

The results of the study indicated a positive response to the possibilities offered by a cooperative program for physical education faculties. Weese (1994) concluded that the number of co-op education programs in Canadian universities will continue to increase in the next decade as the benefits of those programs continue to be uncovered and promoted (p. 75).

From the perspectives of these researchers, one can be cautiously optimistic about the place of cooperative education in the physical education/recreation field. As more becomes known, not just about the benefits of co-op, but also about the underlying processes that foster and sustain learning in the academic and work environments, the cooperative concept will find even wider acceptance among the country's universities and institutions, as well as among the students themselves.

Summary

Chapter 2 outlined the present status of cooperative education as it continues to become an increasingly popular educational model among higher educational institutions throughout the country. The focus of the published research, along with some of the issues and concerns raised by those who find the research seriously limited in a number of areas, was presented. The limited amount of research literature related to physical education and its allied fields of study was also considered with respect to the increasing interest in developing cooperative programs in these areas. In the meantime many, questions and uncertainties remain about cooperative education and the overall impact of an experiential learning environment on students' acquisition of knowledge and work-related skills. The scarcity of a body of literature which seeks to address these questions and uncertainties is evidence of the embryonic stage of the research in this area of higher education. The proposed study attempted to examine a relatively unexplored area of cooperative education, the field of physical education and recreation, and to offer some insight from the perspectives of the students into this unique educational process.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Introduction

This research project might be appropriately described as an exploratory, descriptive study designed to analyze and portray in as rich and detailed a manner as possible the perceptions of students involved in a cooperative education program. Additionally, because one of the major purposes of conducting research is the practical utility of the findings, this study may also be considered under the category of applied research (Castelter & Heister, 1980). Although the research included a number of the characteristics prevalent in basic research, such as the employment of sampling techniques and inferences about the population studied, its intent, as with all educational research, is to improve the teaching-learning processes. Thus, this study is directed toward examining a cooperative physical education/recreation setting with a view to developing a better understanding of the learning that takes place through this experiential process.

This chapter highlights the justification for the use of both quantitative and qualitative research designs and methodologies chosen to investigate and gather information from respondents related to their perceptions of cooperative learning. The development of the research instruments is discussed, along with a description of the research population, ethical considerations, and the strategies for data analysis.

Justification for Research Methodologies

The study, descriptive and qualitative in nature, employed a number of methodologies in the collection of the data and included the use of self-completed questionnaires (see Appendix B), semistructured interviews, and a focus-group discussion. Research design employing both quantitative and qualitative methods of data collection have been used by other researchers in exploring similar phenomena. This linking of methods can be advantageous for a number of reasons. Rossman and Wilson (as cited in Miles & Huberman, 1994) summarize these reasons, pointing out that quantitative and qualitative methods used together "enable confirmation of each other via triangulation, can help to elaborate or develop analysis, provide richer detail, and to initiate new lines of thinking by providing fresh insight" (p. 41).

Questionnaire Methodology

The decision to adopt a survey process as one of the means of data collection for this study was taken with full knowledge of its implicit weaknesses. The survey questionnaire, developed with the particular population in mind, sought to elicit students' perceptions of experiences related to their co-op program. This technique has been defended by many authorities in the research field as a "viable means of gathering information at a particular point in time about the nature of existing conditions or to determine the relationships that exist between specific events" (Cohen & Manion, 1994, p. 83). However, there is a tendency for some researchers to regard surveys with a degree of disdain, perhaps because of past encounters with poorly planned, poorly executed, and poorly analyzed survey questionnaires or because too many carelessly and incompletely prepared surveys have found their way into the research. Nevertheless, through careful development of the questionnaire and by adhering to clearly defined construction and administration practices throughout the research project, this researcher feels that these criticisms have been avoided.

A second justification for selecting this process to collect data was based on the premise that, by having the researcher administer the questionnaire, some of the same advantages found in an interview procedure may be realized. These included such advantages as the opportunity to establish rapport with participants, explain the purpose of the study, and clarify any individual items or concerns that may have arisen.

Finally, because the research is of an exploratory nature, the data collected from the sample population may be used to form the basis for more in-depth and focused research in specific areas of the cooperative program which may be identified and defined through the questionnaire.

Qualitative Interviews

The second method of data collection used in conjunction with the survey questionnaire was the use of qualitative interviews. A semistructured approach was taken to ensure a degree of uniformity among the interviewees. These interviews were conducted with volunteers representative of the research population. Because these types of interviews yield a great deal of personalized information about students' perceptions of the cooperative program, they served to add texture and emotional meaning to the findings provided by the survey questionnaire. The decision to use semidirected interviews was not a difficult one to defend because many researchers, among them, Guba and Lincoln (1981), Bogdan and Biklen (1982), Best and Kahn (1993), and Hitchcock and Hughes (1995), supported the use of the interview as a reliable and effective means of data collection. "The semi-structured interview tends to be most favored by educational researchers since it allows depth to be achieved by providing the opportunity on the part of the interviewer to probe and expand the interviewees responses" (Hitchcock & Hughes, p. 157). In this study the interview was used to lead the researcher to an understanding of how respondents make sense of their world. In essence, the flexibility of the interview process will enable the researcher to learn what is important to the respondents and to delve into those areas and topics to acquire information not possible through the survey process. As Rubin and Rubin (1995) observed, "Through qualitative methods such as interviews, you can understand experiences and reconstruct events in which you did not participate" (p. 1).

Focus-Group Discussion

A third method used to collect data was the focus-group interview. Morgan (1988) delineated focus-group interviews as a method often used in marketing research but one which has recently been discovered by the broader social science community. Focus groups are typically selected based on a target or purposive sampling of informants who are brought together to discuss the particular phenomenon of interest to the researcher.

Although focus groups have much in common with the traditional personal interview, Morgan (1988; as cited in Palys, 1992)) argued that as an instrument for data collection "their unique social dynamics gives them a number of advantages" (p. 172). Stewart and Shamdasani (1998) distinguished focus-group research as a useful method to stimulate in-depth exploration of a topic about which very little is known. "Focus groups may be useful at virtually any point in a research program, but they are particularly useful for exploratory research when rather little is known about the phenomenon of interest" (p. 505). The primary reason for using focus groups in the current study is that, unlike surveys which constrain research participants responses, focus groups can produce a rich body of data expressed in the words and phrases of the participants. As well, relative to the semi-directed interview, the use of focus groups has the advantage of allowing group members to respond to and build upon the remarks and opinions of other group members. Instead of "inventorying these opinions, the focus group provides a process which puts on the table and where differences among perspectives can be highlighted and negotiated. This allows participants to "embellish on positions, discuss related dynamics and articulate the rationale underlying their perspective" (Palys, 1992, p. 172). This synergistic effect of the group setting, where the researcher is not as central to the process, may result in the production of data or ideas that might not be uncovered in individual interviews" (Stewart & Shamdasani, 1998, p. 509).

In addition to these three methods of gathering data, the researcher invited participants to submit previously completed work-term reports. These reports, although a major part of a student's work-term evaluation, yielded little relevant information because they were of a predominantly technical nature and were generally not related to the work-term experience in any way useful to this study.

Finally, demographic information collected from the respondents will allow for comparisons to be made across a number of subgroups within the population.

The advantages of using multiple methods of data collection in the study are manifold. First, triangulation in educational research can assist the researcher in "establishing the validity of the findings by cross-referencing, for example, different perspectives obtained from different sources, or by identifying different ways the phenomena are being perceived" (Hitchcock & Hughes, 1995,

p. 323). Second, the use of triangulation will help overcome the problems and criticisms associated with "method-boundedness" or the predominant use of a particular mode of inquiry without consideration for alternative techniques (Cohen & Manion, 1994, p. 234). Last, it is perhaps only through the use of multiple methods that the underlying research questions can be adequately answered. In essence, what is the cooperative experience like for the physical education/recreation student, and how do these experiences engender learning? All methods of data collection must attend to this focus.

Selection of Research Participants

The population for the study consisted of all undergraduate students registered in the physical education cooperative program during the 1998 winter semester who had completed at least one work term. One hundred twenty students (79 males, 41 females) were considered to be eligible for participation in the study. The sample was distributed across three classes representing second-year students (35), third-year students (44), and fourth-year students (41). A summary of demographic information is presented in Chapter 5, Table 5.1. Third-year and fourth-year students who were on campus completing an academic semester were contacted during a number of in-class visits by the researcher and invited to participate in the study. Those who volunteered to participate were asked to complete the questionnaire during a prearranged scheduled time, with the researcher in attendance. Second-year students who were engaged in a work-term semester and were locally employed were contacted by telephone or a visit to the job site by the researcher and invited to participate in the study. Work-term students outside the local area (10) and fourth-year students (28) who were not on campus at the time were asked to participate through a cover letter which accompanied a mailed questionnaire package. A follow-up telephone call was made to students who had not returned questionnaires approximately three weeks following the mail out date. A total of 30 (79%) questionnaires were received from the 38 questionnaires mailed to students. Overall, 96 students representing 80% of those eligible returned the completed questionnaires. The breakdown of questionnaire returns by class follows in Table 3.1.

Table 3.1

Distribution of Questionnaires by Class

Class	2nd year	3rd year	4th year	Total
Class size	35	44	41	120
# of questionnaires returned	27	40	29	96
# of male respondents	20	27	21	68
% of male respondents	74.1	67.5	72.4	70.8
# of female respondents	7	13	8	28
% of female respondents	25.9	32.5	27.6	29.2

A sample of 14 students (6 male, 8 female) from those who had volunteered were involved in the interviews and focus group discussion. One student participated in an interview as well as the focus-group discussion. Interviewees were selected by the researcher on the basis of their availability during the data-collection period and on the basis of having representation from each of the three classes. Three students were interviewed individually by the researcher, and six students were paired during the interview sessions.

The focus group was comprised of six members. These were selected based on a "best mix" approach which took into account participants whom the researcher felt were likely to be willing to speak out and express their views on a particular topic, were generally articulate, and could talk knowledgeably about their co-op experiences. The group dynamic as well as male-to-female ratios and perceived level of interaction with respect to including students from all three classes were also considered in selecting the focus group.

Purposive sampling of this nature is supported as an appropriate method in focus-group research. Bickman and Rog (1998) suggested that "because it is generally inappropriate to generalize far beyond the members of focus groups, the sampling frame need only be a good approximation of the population of interest." Furthermore, they argued that a random sample of the population would "unlikely produce individuals who have certain characteristics, experience, or unique knowledge consistent with the research objectives" (p. 511).

Ethical Considerations

This proposal was submitted to the Ethics Review Committee in accordance with the University of Alberta research regulations. Every effort was made by the researcher to avoid ethical problems. This included an obligation by the researcher to consider the issues related to using students as research subjects. The participants were informed of the nature and purpose of the study prior to their participation. All participation in the study was voluntary, and respondents were not coerced in any way to participate. Volunteers in the study were informed that they could withdraw at any time. The researcher explained that the respondents would remain anonymous and that opinions and information provided would be treated confidentially. All research participants were informed of the purpose of the research both verbally and in written form and were asked to sign an informed consent form indicating their willingness to participate in the study and the nature of their participation.

Notwithstanding the serious nature of the issues surrounding the use of university students as research subjects, the researcher perceived that students appeared to be genuinely interested in the research process and considered their participation a valuable learning experience. Many students included positive comments on their returned questionnaires and indicated a willingness to assist in other aspects of the research as well. The students also commented on the research, expressing the view that the study was likely to be of some "real use" to students in the program. Taken together, this feedback was considered to be an endorsement of the relationship that existed between the researcher and the participants. Beyond the practical considerations of having a convenient, inexpensive study population for the research, there is a *quid pro quo* relationship in that study participants will be remunerated, hopefully, by the provision of information that is relevant and useful to those involved in the program.

Development and Design of Research Instruments

The development of an item pool for use in the construction of the survey component of the study as well as the semistructured interviews and focus groups was generated out of information gathered by the researcher from a number of primary sources. These sources were (a) students' perceptions of the co-op program recounted during classroom discussions and presentations in courses taught by the researcher, (b) students' recollections of their cooperative experiences during academic advisement sessions and informal conversations with students during their on-campus academic semesters, (c) formal and informal meetings and discussions with faculty and program staff responsible for the program which gave general direction to the research, and (d) a review of the available research literature on cooperative programs which examined various areas related to cooperative education and experiential learning, particularly those which sought the opinions and perspectives of students. The information from these four areas was instrumental in assisting the researcher in the design of the data-collection instruments.

A content analysis of the published research literature, a review of related existing measures, along with an examination of the more anecdotal and narrational accounts provided by colleagues and students, suggest, among other things, many similarities and a great deal of overlap in the types of experiences and perceptions identified as a consequence of the cooperative experience. Through this process a number of categories of student perceptions emerged which were helpful in focusing the research. These inductively derived categories were loosely organized by the researcher under the following five broad categories for consideration in the present study: (a) academics, (b) career and professional considerations, (c) work terms, (d) personal and interpersonal considerations, and (e) learning processes.

Pilot Study

The questionnaire used in the study was revised several times through an interactive process designed to ensure greater validity to the instrument. This process involved a jury of experts comprised of physical education faculty members, co-op staff, and graduates of the program. These individuals were asked to review the questionnaire for inconsistencies and to suggest any appropriate changes to the research instruments. As a result of the feedback received, the questionnaire underwent a number of additional changes in both content and design. Following this, the adjusted questionnaire was formally pilot-tested with a volunteer group of recent graduates of the program. These individuals were not included in the study. The respondents were asked to make comments and suggestions directly on the questionnaire itself with respect to items that appeared to be ambiguous, confusing, or unclear. They were also asked to provide any feedback which they felt might serve to improve the instrument. A total of 15 pilot-testing packages consisting of the questionnaire, an answer sheet, and a cover letter explaining the intent of the pilot study was sent to a faculty member at the research site who had previously agreed to administer the pilot study. The faculty member was briefed on the questionnaire administration procedures. The pilot study, insofar as possible, duplicated the procedures used in the main study. A total of 13 pilot-study questionnaires was returned to the researcher prior to final typing of the questionnaire. Based on the feedback received from the pilot group, the only substantive changes made to the questionnaire were formatting and editorial in nature. The pretest of the survey questionnaire allowed the researcher to locate ambiguities, check to ensure completeness of responses, and consider other points that may have led to improvement of the instruments. As well, feedback received during the preliminary study provided an opportunity for clarifying, refining, and adapting the semistructured interview questions (Appendix A) prior to use in the individual and focus-group interviews.

The Data-Collection Instruments

Questionnaire

As a quantitative measure, the descriptive survey questionnaire was chosen as a practical and appropriate instrument for data collection in this exploratory study. Neuman (1997) argued that surveys can be used to "explain or explore and have the ability to ask many people about their beliefs, opinions, and past and present behavior" (p. 228). The decision to employ a questionnaire as part of the data collection methodology was also based in part on the flexibility of questionnaires to capture data, both quantitatively and qualitatively, which could be managed and analyzed effectively given the time and financial considerations.

A number of references were consulted and provided direction to the construction of the questionnaire (Berdie, Anderson, & Neibuhr, 1986; Bickman & Rog, 1998; Fraenkel & Wallen, 1996; Gall, Borg, & Gall, 1996; Neuman, 1997). The final version of the questionnaire was eight pages in length and was comprised of eight sections: (a) academic perceptions, (b) career and professional perceptions, (c) work-term perceptions, (d) personal and interpersonal perceptions, (d) learning strategies, (f) learning obstacles, (g) general information, and (h) open-ended questions. The research instrument used in this study consisted of 131 questions, seven of which were open-ended and offered the respondents the opportunity to provide qualitative information on their learning experiences and their overall perceptions of the program.

A 5-point Likert-type scale, requiring a response ranging from *strongly agree* to *strongly disagree,* was used for closed-ended questions in the first four sections of the questionnaire. Section E used a 4-point scale and asked respondents to indicate the level of importance of various learning strategies ranging from *very important* to *not at all important*. Section F also used a 4-point scale requiring responses related to how often *(always, most of the time, sometimes, never)* certain learning obstacles were perceived as deterrents to learning. Section G collected demographic information about the research participants. A National Computer Systems Inc. general-purpose answer sheet was provided for recording responses in those sections. The open-ended questions were completed directly on the questionnaire, and space was provided for this purpose.

Section A, academic perceptions, listed 25 statements which were used to obtain the respondents' perceptions of their academic environment. Statements pertaining to discrete elements of the academic setting were included in this section. For example, respondents were asked to indicate their perceptions of the academic semester in terms of fostering and developing such skills as communicating, oral presentations, writing, problem solving, and listening. Research participants were also asked about their perceived role in self-directed learning, the value of self-reflection, and other learning activities that occur in the co-op program.

Section B, career and professional perceptions, was comprised of 13 statements. This section focused on the students' perceptions related to testing career options, marketability skills, career development, and an understanding of the professional field of physical education/recreation.

Section C, work-term perceptions, posed 27 statements on the nature of the work-term environments. The students were asked to respond to statements related to their of work-term experiences, the value of academic courses to the work term, skills learned during the work term, student role in the work term, and overall work-related competencies developed during the work term.

Section D, personal and interpersonal perceptions, asked students to provide feedback on the ability of the co-op program to foster and promote a supportive environment for students, enhance self-confidence, encourage a sense of well-being, and develop social skills, including the ability to get along with others.

The next two sections of the questionnaire focused on the learning strategies employed by students and the conditions that the students perceived as obstacles to learning in the cooperative program. A total of 18 statements sought the students' perceptions on the importance of such learning strategies as; reflection, group discussion, trial-and-error learning, mentoring, and field trips, along with the more traditional learning strategies, to the overall learning processes in the cooperative program.

Section F presented a list of 14 obstacles to learning which may have prevented or deterred students from acquiring new knowledge or skills. The respondents were asked to indicate how often *(always, most of the time, sometimes, never)* these conditions were perceived as barriers to learning in the cooperative program. Obstacles to learning included negative past experiences, lack of self-confidence, fear of failure, lack of motivation, inadequate learning resources, unclear expectations, lack of physical skills, lack of preparation time, outside pressures, lack of sport/recreational background, pressures to meet deadlines, lack of financial resources, too heavy a course work load, and personal injury or illness.

Section G, general information, elicited demographic data about the research sample. Information collected was used to develop a profile of the students in the program. Specifically, the demographic data was used to define the characteristics of the total research sample as well as the characteristics of the three subgroups, including male-female ratios, age, grade-point averages, number and type of work terms completed, average work-term salary, and average number of hours worked per week.

The final section of the research questionnaire, Section H, consisted of five open-ended questions similar to those listed in the interview schedule, requesting the students' comments on (a) what they felt were the most valuable learning experiences of the cooperative program; (b) where they felt the most valuable learning took place; (c) what strategies were used most often to acquire new knowledge and to learn new skills; (d) if given a choice, why they would have selected, or not selected, a co-op program; and (e) whether or not they would recommend the program to others.

Interviews and Focus Group

In an attempt to gain as much insight as possible into the perspectives of students in the cooperative program, a qualitative approach was employed. The use of individual, semistructured interviews and a focus-group discussion provided an insider's view of the students' experiences and in many ways added "depth, detail and meaning at a very personal level of experience" (Patton, 1990, p. 19). A more complete discussion and rationale for multiple information-gathering techniques was addressed in an earlier section of this research report.

Validity, Reliability, and Trustworthiness of Research Methodologies

Denzin (1970) suggested that "by combining multiple observers, theories, methods and data sources, researchers can hope to overcome the intrinsic bias that comes from single methods, single observers and single theory studies" (p. 313). This study employed a number of methods in the data-collection process—namely, the use of questionnaires, individual interviews, and a focus-group discussion—in an effort to minimize the weaknesses inherent in any one approach. Nevertheless, it must be recognized that, regardless of the data-collection techniques used, the quality of any research methods are subject to scrutiny regarding their validity and reliability. In order to safeguard against problems that may interfere and prevent the researcher from drawing meaningful conclusions and presenting trustworthy inferences about the subject under investigation, these two factors must be taken into consideration.

The researcher needs to recognize that

> regardless of the type of research, validity and reliability are concerns that can be approached through careful attention to a study's conceptualization and the way in which data were collected, analyzed, and interpreted. Different types of research are based on different assumptions about what is being investigated, however, and different designs seek to answer to answer different questions. Thus, appropriate standards need to be used for assessing validity and reliability. (Merriam, 1988, p. 165)

According to Frankel and Wallen (1996), "In recent years, validity has been defined as referring to the appropriateness, meaningfulness, and usefulness of the specific inferences researchers make of the data they collect. Validation is the process of collecting evidence to support such inferences" (p. 153).

However, as Drew, Hardman and Hart (1996) note:

> Investigation validity is always approximate. Science is a process that attempts to provide the best possible information regarding the truth (or lack thereof) of some statement, hypothesis, or explanation of a phenomenon. Investigators are continually attempting to provide the most trustworthy information possible. (p. 192)

Similarly, with reference to the research methodology, the notion of reliability must be considered. Reliability is used in this study in the sense that the measurement process will produce responses to the questionnaire items which are dependable and consistent. In other words "given the data collected, the results make sense" (Merriam, 1988, p. 170).

Validity and Reliability of Quantitative Measures

Bickman and Rog (1998) further suggested that, fundamental to any survey design, five basic characteristics of questions and answers must be addressed:

1. Questions need to be consistently understood.
2. Questions need to be consistently administered or communicated to respondents.
3. What constitutes an accurate answer should be consistently communicated.

> 4. Unless measuring knowledge is the goal of the question, all respondents should have access to the information needed to answer the question accurately.
> 5. Respondents must be willing to provide the answers called for in the question. (p. 344)

Finally, it is important to point out that the researcher-developed questionnaire used in this study, unlike psychological tests and inventories, was designed with a limited purpose in mind. That was to serve as a one-time data-gathering instrument administered to a particular population in an effort to uncover the perspectives of those involved in a cooperative education experience. There are numerous forms of validity whose relevance depends to a large extent on the purposes for which the data-collection instrument was designed. The following sections address, in general terms, those areas of validity and reliability that are most pertinent to this research design.

Content-Related Validity

Content-related validity, according to Borg and Gall (1983), refers to "the degree to which the sample of test items represents the content that the test is designed to measure" (p. 276). Best and Kahn (1993) pointed out that content validity "is the degree to which the questionnaire actually measures or is specifically related to the traits for which it was designed" (p. 219). In other words, it "shows how adequately the instrument items samples the universe of knowledge and skills that a student is expected to master" (p. 219).

In the development of the questionnaire a content analysis was completed to obtain relevant information about the topic and to assess other related research findings. This analysis produced an item pool of approximately 170 possible questionnaire items. These were subsequently reduced to approximately 110 items and clustered into five categories.

The content items for these five categories were also compared with the Conference Board of Canada's Employability Skills Profile, developed in 1992, which outlines the generic work-related skills that are seen as the foundation for employment now and in the future. The profile describes three categories of skills. The academic skills category includes abilities related to communication, critical thinking, problem solving, and a desire to continue to learn. The personal management skills category consists of items related to positive attitudes and behaviors, self-responsibility, adaptability, and respect for individual differences. The final category, teamwork skills, focuses on the abilities needed to work with others, such as understanding and contributing to the organization's goals and planning and making decisions based on a group approach. These categories revealed a high degree of compatibility between the generic-skills outline in the profile and those included in the questionnaire. Content validity was thus established for the research questionnaire.

Construct-Related Validity

According to Borg, Gall, and Gall (1993),

> A test has construct validity to the extent that it can be shown to measure a particular hypothetical construct. Psychological concepts such as intelligence, anxiety, and creativity are considered hypothetical constructs because they are not directly observable but rather are inferred on the basis of their observable effects on behavior. (p. 122)

Construct validation, as noted by Frankel and Wallen (1996), involves a wide variety of procedures and many different types of evidence including both content-related and criterion-related evidence. The more evidence researchers have from many different sources, the more confident they become about interpreting the scores obtained from a particular instrument. Construct-related validity for the research questionnaire was established in this study in several ways. First, items in the questionnaire were judged by those knowledgeable in the field to be related to and representative of the overall cooperative experience. Second, the questionnaire features, such as format, directions, reading level, and scoring, were judged to be a valid means of collecting data relevant to the perceptions of students involved in a cooperative education program. Third, multiple methodologies were used in the data collection. Denzin (1978) suggested that "the rationale for this strategy is that the flaws of one method are often the strengths of another: and by combining methods, observers can achieve the best of each while overcoming their unique deficiencies" (p. 302). Thus the data-collection process in this study involved the use of the research questionnaire administered to three groups of students, personal interviews, and a focus-group discussion.

Face Validity

Although not seriously considered to be of great "scientific" importance, face validity, or the extent to which the questionnaire appears to measure what it "purports" to measure, was established by having subject material specialists, cooperative faculty members, and the coordinator of the cooperative program rate the appropriateness of the questionnaire items. The researcher's advisor and committee chair were also helpful in suggesting modifications and proposing additional items for inclusion in the questionnaire.

A final source for face validation came from the pilot study. The pilot study group, comprised of recent graduates and graduate students, were asked to complete the questionnaire and to check for any problems with wording, directions, or ambiguity in the items. A number of revisions were made to the instrument based on this pretest process.

Reliability of Quantitative Instrument

Palys (1992) described *reliability* as "generally synonymous with consistency, whether of the same phenomenon over time or of judgments regarding the same phenomenon across different observers" (p. 70). Reliability "as applied to educational measurements may be defined as the level of internal consistency or stability of the measuring device over time" (Borg & Gall, 1989, p. 257). More recently, Borg, Gall, and Gall (1993) delineated three types of test reliability: item consistency, test stability, and consistency of test administration and scoring. They also observed that "one type of reliability is typically of most concern, depending on the measure involved and the research situation" (p. 129).

The questionnaire employed in this study, developed for its descriptive purposes, was used within the confines of one research setting. Because the particular attributes, students' perceptions of their cooperative experience, are considered to be relatively consistent, test stability was less of a concern. Consistent protocol and administration of the research questionnaire were followed during data-collection procedures. All respondents were given the same instructions for completing the questionnaire, and both on-site and mailed questionnaires consisted of the same information package.

The questionnaire was administered to three groups of students enrolled in the cooperative program. The analysis of results revealed no statistical differences in response categories among the three groups. It could be hypothesized that the research results confirmed the reliability of the questionnaire in so far as the responses from all three groups were similar.

Aspects of Rigor in Qualitative Measures

Data collection in this study utilized a number of qualitative research methods, which included an open-ended-question section in the questionnaire, personal interviews, and a focus-group discussion. A number of authorities in educational research have noted the differences in establishing validity and reliability in qualitative research as opposed to the traditional values ascribed to these terms in quantitative research. Guba and Lincoln (1981), Patton (1990), Rubin and Rubin (1995), Gall, Borg, and Gall (1996), and Bickman and Rog (1998), have discussed the notion of validity and reliability in qualitative methods, suggesting, among other things, that "most indicators of validity and reliability do not fit qualitative research. Trying to apply these indicators to qualitative work distracts more than it clarifies" (Rubin & Rubin, 1995, p. 85). Instead, issues of rigor and standards for judging the quality of qualitative research are addressed somewhat differently than in quantitative research.

In qualitative inquiry, validity hinges to a great degree on "the skill, competence, and rigor of the person doing the fieldwork" (Patton, 1990, p. 14). Guba and Lincoln (1981) argued that in qualitative research

> the inquirer is himself the instrument, changes resulting from fatigue, shifts in knowledge, and cooptation, as well as variations resulting from differences in training, skill, and experience among different "instruments," easily occur. But this loss of rigor is more offset by the flexibility, insight, and ability to build on tacit knowledge that is the peculiar province of the human instrument. (p. 113)

Several strategies were employed to ensure accuracy or trustworthiness of the qualitative data. As mentioned previously, a variety of methods was used in the data-collection process. This research strategy, known as triangulation, provided multiple sources of data which enabled the researcher to cross-check for systematic distortions in the data analysis. As Stake (1988) explained,

> One of the primary ways of increasing validity is by triangulation. The technique is one of trying to arrive at the same meaning by at least three independent approaches. Naturally a finding that has been triangulated with several independent data-holdings is usually more credible than one that has not. (p. 263)

A second strategy involved the gathering of data over a period of time, involving all three groups within the cooperative program, and in a variety of different situations and combinations. For example, questionnaires were administered both on site with the researcher present and through a mail-out process. Interviews were conducted with individual students as well as with students who were interviewed in pairs. A focus-group interview was also conducted with representatives of the research population. These methods helped shield against researcher bias and ensured that unique or unrepresentative events did not receive unwarranted attention and importance in the data analysis (Drew, Hardman, & Hart, 1996, p. 171). As well, rich and supportive data from a variety of sources were instrumental in the creation of a detailed, accurate account of the phenomena of interest. This "rich" data included verbatim transcripts of all interviews, descriptive note taking during interviews, and subjects' descriptive written responses to the open-ended questions on the questionnaire.

Summary

In summary, it must be reiterated that the purpose of this study was toward an exploration of students' perceptions of their experiences in a cooperative physical education program. The focus is to learn something about the nature of the cooperative education experience. It does not seek to tell an "abstract truth" or to offer generalizations beyond the research population in this study. Both quantitative and qualitative measures employed in this study to gather data were described. This chapter also discussed the rationale for using multiple methodologies, presented a number of ethical considerations, and examined several issues related to the validity and reliability of the research methods.

CHAPTER 4

DATA COLLECTION AND ANALYSIS

The semistructured, in-depth interviews developed to complement the questionnaire and the focus-group discussion were scheduled during the same week of the semester in which the questionnaires were administered. The students were notified of the study through a letter sent to the department head and posted in various areas of the physical education facility.

Questionnaire Administration

The survey questionnaire was administered to volunteer participants who were on campus during the fourth week of classes of the winter semester. Respondents included third-year students who were in an academic semester as well as students from the second-year class who were engaged in a work term. Thirty-eight students were contacted through a mailed-out survey package and invited to participate in the study. These included members of the fourth-year class and work-term students outside the research site.

Students who agreed to participate in the questionnaire component of the study were asked to indicate the intensity with which they agreed or disagreed with evaluational statements contained in the survey questionnaire. For example, respondents were asked to respond to such statements as, "I feel the co-op program improves graduates' chances for attaining a full time job," and "Academic courses encourage self-reflection." A Likert-type scale was selected because it was felt that this would be most uniformly interpreted. As well, five open-ended questions were included, offering participants the opportunity to provide information outside the questionnaire responses.

Interview and Focus-Group Protocol

The students were asked to indicate their willingness to participate in the individual interviews and the focus-group discussion during the administration of the questionnaire. Interviewees were then randomly selected from those students who volunteered. Each interview followed the same protocol. The interviews, which lasted between 40 and 90 minutes, were held in as informal and comfortable a setting as possible and at the convenience of the volunteers. Before the interview began, the researcher described the purpose of the interview and the nature of the research project and reviewed the ethical guidelines and informed consent form. The interviews were audiotaped, and the researcher made notes during the course of the interview. Because these methods of recording the interview may create anxiety and self-consciousness on the part of the respondent, the researcher made every effort to ensure that the process was as nonthreatening as possible. The interviews were based on the interview guide (Appendix A); however, considerable latitude was afforded the respondents in determining the overall direction of the interview. The tape-recorded interviews were transcribed, reviewed, and content analyzed for emerging patterns and themes.

The protocol for the focus-group session, which was approximately 90 minutes' duration, followed the same procedures as the individual interviews. The participants were informed of the nature of the study and their right to withdraw from the discussion at any time. The researcher also explained the rationale for maintaining confidentiality and asked the group members to agree in writing not to divulge any information regarding the focus-group discussion.

Following each interview the researcher reviewed the tape recording to check for audio quality and to determine whether there were any areas within the interview that might be ambiguous or unclear to the researcher. A number of comments which were perceived as vague or uncertain with respect to meaning were followed up with the respondent and clarified.

A total of 96 students (80%) of the research population completed the study questionnaire. Fourteen students took part in the interviews and the focus-group discussion.

Data Analysis

The self-completed questionnaires were initially edited to identify any errors made by respondents. Mosher and Kalton (1977) pointed out three main tasks in the editing process: (a) completeness, to confirm that every question has been answered; (b) accuracy, to check to ensure that questions have been answered properly; and (c) uniformity, to verify that instructions have been interpreted the same way by all respondents (as reported in Cohen and Manion, 1994, p. 101). The data were coded and summarized using measures of central tendency. The descriptive statistics in this study were used to support findings from the qualitative data provided by the personal interviews and focus-group discussion. Sieber (1982) supported the notion of using quantitative interpretations of experience in illuminating and describing the study findings. First, these data can correct what he calls the *holistic fallacy*-that is, they can help the researcher guard against assuming that all aspects of a situation can fit an emerging theory. Second, quantitative data can be used in support of a generalization made from a single or limited observation. Third, observations based on fieldwork can be verified. Last, survey results can cast a new light on field observations; or more precisely, the serendipitous nature of some survey findings can illuminate a field observation that was hitherto inexplicable or misinterpreted (Merriam, 1988, p. 69).

Analysis of Quantitative Data

The data obtained through the self-completed questionnaires were reviewed by the researcher and analyzed using an optical scanning process and SPSS computer software. This process organized the data into descriptive statistics, which were then used to summarize and present the respondents' perceptions of items on the questionnaire. As with any descriptive analysis of data, no assumptions or conclusions were extended to populations beyond the individuals in this particular research group. However, differences in perceptions between and among groups were analyzed using measures of central tendency.

The participants' descriptive written responses to the five open-ended questions from the survey questionnaire were entered into Microsoft Word files. Through a combination of the keyword-searching features of the software package and the researcher's review of the printed data, complementary responses and ideas were identified. This enabled the researcher to organize the text into clusters and themes which clarified and refined the data. Tabular summaries of themes which emerged from the open-ended questions are included in Chapter 5.

Analysis of Qualitative Data

The principles and practices supported by Mertens (1998) and the process of qualitative data analysis described by such authors as Rubin and Rubin (1997), Feldman (1995), Miles and Huberman (1994), Silverman (1993), Tesh (1990), and Patton (1990) served as a guide for the data-making phase of this study. The qualitative data from the interviews were transcribed, analyzed, and coded for recurring themes and events. A brief description of the data analysis procedures used in this study follows:

1. The raw data from the audio-recorded interviews were initially reviewed by the researcher for response clarity and quality of the recordings. The tapes were edited for irrelevant discussion, and a backup copy of the recording was made and labeled for identification.

2. The tapes were transcribed verbatim by an independent transcriber, and a printed copy, along with a disk copy for Macintosh computer programs, was returned to the researcher. Individual computer files were set up for each of the interviews as well as the focus-group discussion.

3. The initial content analysis began with a careful reading and rereading of the transcripts, along with listening to the taped interviews to ensure that the data were complete and to get an overall sense of the text. It was at this stage that the researcher, with the aid of the audiotapes, verified and filled in any missing gaps where the transcriber may have been unsure of the discussion. Four hard copies and backup disks were made of the interviews and kept in a secure location.

4. Using the initial research questions and the six categories from the questionnaire to focus the content analysis, the researcher organized the data into smaller data segments and categories through a system of coding, abbreviating topics, and note taking directly on the relevant data sections.

5. Through the process of classifying and establishing a data index, patterns, commonalties, themes, and differences began to emerge. These continued to be modified as further insights representing respondents perceptions were revealed to the researcher.

6. The next stage in the analysis of the qualitative data involved the comparison of material and versions of events within and across categories to begin to develop linkages which supported the research questions. This cut-and-sort technique was carried out on a personal computer using available

word-processing applications. Once the researcher felt that no new information was emerging which fit into the six general categories, the analysis was discontinued. Themes identified through analysis of the qualitative data were considered in relation to the data presented by the questionnaire. The results of the present study are discussed in Chapter 5.

Summary of Data Collection and Analysis

The study generated both quantitative and qualitative data. The questionnaire, designed to elicit the perceptions of students in a cooperative physical education program, focused on six general areas related to the program. The questionnaire produced data related to (a) academic perceptions, (b) career and professional perceptions, (c) work-term perceptions, (d) personal and interpersonal perceptions, (e) students' learning strategies, and (f) learning obstacles. As well, open-ended questions gave respondents an opportunity to provide personal comments about their most valuable learning experiences, where the most valuable learning takes place, strategies used to gain new knowledge, whether or not they would have chosen the cooperative program over a noncooperative program, and whether or not they would recommend the program to others.

The qualitative methods used to collect data for the study consisted of individual interviews and a focus-group discussion. These data served to provide greater insight into several of the areas examined by the questionnaire. It was felt that the descriptive nature of the interviews would elicit data that were "rich and vivid" in detail and which would give a complete and genuine picture of an individual's experiences in the cooperative education program.

The quantitative analysis for the study involved the use of descriptive statistics, including frequencies, means, and percentages for each of the variables. Analysis of the qualitative data followed a strategy of categorizing, summarizing, and condensing the interview transcripts into a descriptive framework that addressed the research questions under study. All statistical files were copied on Macintosh disks, along with transcripts of interviews, and have been preserved.

CHAPTER 5

RESEARCH FINDINGS

Introduction

The purpose of this exploratory study was to investigate and identify the nature of the cooperative education experiences of university students enrolled in a four-year physical education/recreation program of study. The study focused on several areas related to the cooperative program, which included academic and work terms, career and professional perceptions, personal and interpersonal perceptions, and learning strategies and obstacles to learning.

A number of research questions served to give the project its initial focus:

1. What are the views of students regarding the nature of learning that takes place in a cooperative physical education/recreation program?
2. What are the underlying perceptions of students toward the acquisition of professional career-related skills?
3. Do students perceive the work-term experiences as opportunities to operationalize their current academic knowledge as well as to gain other knowledge and skills useful to their chosen career?
4. What are the perceptions of students regarding the relationship between formal (academic) learning and informal (work-place) learning?

Several research methodologies were utilized in the collection of the data for this study. A researcher-developed questionnaire was used to collect quantitative information from students who were currently enrolled in the program. Qualitative data were provided through a series of semistructured interviews, along with a focus-group discussion. A total of 96 volunteers, 80% of those eligible, participated in the study.

The quantitative results were achieved primarily through the use of descriptive statistics. Qualitative findings were obtained through a content analysis of the interview transcripts. This chapter will focus on a summary of results and findings of the study obtained by the respective quantitative and qualitative data-collection procedures.

Quantitative Results

This first part of the chapter is organized according to the categories used in the questionnaire. These categories were (a) academic perceptions, (b) career and professional perceptions, (c) work-term perceptions, (d) personal and interpersonal perceptions, (e) learning strategies, and (f) learning obstacles. Tabular summaries for all questionnaire items are included in the appendices of the report.

Demographic Profile

The questionnaire was administered to students from three different co-op classes within the program following the procedures outlined in the previous chapter. Table 5.1 illustrates the distribution and demographic information of the study participants by year of enrollment in the program. The demographic characteristics of gender, age, and class average reveal negligible variation between the study sample and the research population. The total number of male respondents, 68, compared to the total number of female respondents, 28, is representative of the overall population of students enrolled in the cooperative program.

Table 5.1

Demographic Profile of Study Participants by Year in Program

Variables	2nd year	3rd year	4th year
Male	20 (74%)	27 (67%)	21 (72%)
Female	7 (26%)	13 (33%)	8 (28%)
Avg. age	21.6	22.6	23.2
Class GPA	2.19	2.40	2.21

Table 5.2 outlines data related to employment variables of the total study sample. Of the 96 respondents, 36 (37.5%) reported always holding a part-time job during the academic semester. A further 44 (45.8%) students reported working sometimes during academic semesters. Only 16 (16.7%) respondents indicated never having taken a part-time job during academic semesters. Of all students working part-time, 32.5% reported working more than 17 hours per week.

During work terms the most common work placements for students were reported to be in the sport and recreation area (40.4%), followed by placements in the fitness area (23.7%). Similar numbers of work-term positions were found in the teaching and health care fields, with 13.6% and 13.1%, respectively, of all reported work-term placements reported to be in these two areas. Another 9% of work-term positions were in other areas presumably not related to the physical education and recreation field.

Table 5.2

Employment Profile of Total Sample

Variables	Total frequency	Percentages
Students who worked part-time during academic term	80	83.3
Avg. weekly hours worked (part-time job)		
0 - 8	23	26.7
9 - 16	35	40.7
17 - 24	18	20.9
25 or more	10	11.6
Work term placements		
Teaching	27	13.6
Sport	80	40.4
Fitness	47	23.7
Health care	26	13.1
Other	18	9.0
Avg. work term salary/wk.		
Less than $200	18	19.2
Between $200 and $300	51	54.3
More than $300	25	26.6
Avg. weekly hours worked (work-term placement)		
Less than 30 hours	5	5.4
Between 31 and 40 hours	71	74.7
More than 40 hours	19	20.0

The average work-term salary was between $200 and $300 per week. Fewer than 5% of the students on work terms earned a salary of more than $400 a week. Still fewer students, 1.1%, reported taking a work-term position which paid less than $150 per week. During the work term 74.7% of the students indicated working between 31 and 40 hours per week, and 20% of the sample said they worked more than 40 hours per week.

The results reveal that the employment profiles of the three groups of students are generally similar and consistent, with the exception of the reported work-term salaries. Of the second-year students, 40.7% reported average weekly, work-term salaries over $300 dollars, compared to 20.5% of third-year students and 21.4% of fourth-year students. The reason for this is speculative at this time. One possible explanation is that early in the program there were fewer well-paying jobs available, and students were often forced to take low-paying and sometimes volunteer positions to fulfill the work-term requirements. The program has now developed to the point where co-op positions have increased significantly so that fewer students need to resort to working as volunteers for little or no remuneration. Thus, for senior students this early situation would have had an impact on their average salaries over the course of their four work terms.

Academic Perceptions

The first section of the questionnaire focused on the perceptions of students related to their academic experiences in the cooperative program. This section is comprised of 25 discrete items clustered around two main themes, the generic skills and competencies developed during the academic terms and the types of activities that are used to foster the development of these skills within the academic learning environment. The respondents were asked to indicate the extent of their agreement or disagreement with the questionnaire statements. The data collected were scored using a 5-point Likert scale which ranged from A *(strongly agree)*, B *(agree)*, C *(neutral)*, D *(disagree)*, to E *(strongly disagree)*. In computing the descriptive statistics, a numeric value of 1 was assigned to

A *(strongly agree)*, with E *(strongly disagree)* having a value of 5. Consequently, the mean scores are inverted: The lower the score, the higher the rate of agreement for that category. The data concerning students' perceptions of skills and competencies developed in academic semesters are presented in Table 5.3.

Table 5.3

Skills and Competencies Developed in Academic Semesters

	2nd year		3rd year		4th year	
Academic Skills	Mean	Rank	Mean	Rank	Mean	Rank
Listening skills (1)*	2.0	8.5	2.2	9	2.1	8.5
Use theory in practice (2)	1.5	2.5	2.2	9	2.2	10
Teach sports skills (3)	2.3	11	2.2	9	2.2	11
Communication skills (4)	1.4	1	1.6	1	1.8	2.5
Self-evaluation skills (5)	1.9	6.5	2.1	5.5	1.9	5
Writing skills (8)	1.9	6.5	1.8	2	1.8	2.5
Thinking reflectively (9)	2.0	8.5	2.2	9	1.9	5
Presentation skills (12)	1.5	2.5	1.9	3.5	1.7	1
Problem solving (14)	1.8	5	2.1	5.5	2.1	8.5
Creativity skills (22)	2.1	10	2.2	9	1.9	5
Use of technology (23)	1.6	4	1.9	3.5	2.0	7

* Denotes corresponding item number in questionnaire.

The range of mean scores for the 11 academic skills and competencies outlined in Table 5.3 was relatively narrow. The most highly ranked item with a mean of 1.4 was related to generic communication skills developed during co-op. The lowest ranking of 2.3 was related to the effectiveness of activity courses to provide students with the necessary skills to teach a variety of sport and recreation activities. Students in all three classes held the perception that activity course were not particularly useful in terms of developing pedagogical teaching skills in this area.

The students in the second year of the program rated communication skills, oral presentation skills, and relating academic learning to practical situations as the three most important generic academic skills developed in the academic semesters. Taking a more creative approach to academic work and teaching sport and recreation activities received the least agreement. The third-year students ranked communication skills most highly. Writing and oral presentation skills, along with the ability to use a variety of resources and technologies, were also highly rated. Creativity, reflective thinking, teaching activities, relating theory to practice, and developing effective listening skills all received somewhat less agreement from the third-year class. Oral presentation skills, writing skills, communication skills, and ability to use resources and technology received the most agreement among the fourth-year class. As with the other two classes, the respondents perceived the activity courses as not providing students with the necessary skills to teach a variety of sport and recreation activities.

The second theme in this section dealt with a number of activities which are intended to involve the student directly in the learning process. Table 5.4 illustrates students responses to the questionnaire items dealing with these types of activities.

Overall, the results from the second theme indicate relatively high ranking for co-op activities which emphasized students' personal involvement in the learning process. Interestingly, 87 (91.6%) of the total respondents felt that the co-op program required students to take a more active role rather than a passive role in the learning process. On a related item inquiring about students'

Table 5.4

Mean and Rank of Various Academic Learning Activities

	2nd year		3rd year		4th year	
Variables	Mean	Rank	Mean	Rank	Mean	Rank
Self-directed learning (6)	2.1	4	2.3	3.5	2.3	4
Opportunities for sharing experience (7)	2.1	4	2.4	5.5	2.4	5.5
Taking an active role in learning process (11)	1.3	1	1.8	1.5	1.7	1
Learner-centered approach (16)	2.7	7	2.5	7	2.4	5.5
Learning through an experiential process (17)	2.3	6	2.4	5.5	2.6	7
Increasingly responsible for learning (18)	1.7	2	1.8	1.5	1.9	2
Progressive mastery approach (24)	2.1	4	2.3	3.5	2.2	3

involvement in the learning process, 89 (92.7%) of all respondents perceived that they were expected to assume increasing responsibility for their learning throughout the program. However, although it appears that the co-op program offers a variety of activities which require students' involvement in the learning process, only 49 (51.1%) of the sample expressed the view that the co-op curriculum was in fact based on a learner-centered approach.

In the main, the students perceived the academic component of the co-op program as providing the foundation for a number of generic academic skills. Some of the more highly rated skills included personal communication skills, presentation skills, and writing skills. The students were consistent in their perceptions of the program's inability to provide skills relevant to the teaching of sport and recreation activities. Related to this is the view that the program facilities are less than ideal from the students' perspectives. When asked whether the facilities provided an inviting climate for learning, 43.8% of the respondents disagreed. Only 5.2% of the total sample strongly agreed with the statement. Somewhat less agreement was evidenced among the three classes with regard to relating theoretical learning to practical learning situations. When asked whether or not the value of academic courses became clearer upon starting a work term (Statement 25), 68.8% of all students responded favorably, and 13.5% of the sample disagreed with the statement. Senior students appeared to be more critical of the value of theory courses relative to the work term, with 24.1% disagreeing, compared to 7.4% of second-year students disagreeing with the evaluational statement.

To summarize the research findings from Section A, the students' views about the academic component of the cooperative program were similar and consistent. No major discrepancies among the three groups were noted, although the fourth-year students tended to be somewhat more critical of the academic component of the program than the other two classes were. A partial explanation for this may be related to senior students having had time to develop a more narrow focus with respect to career goals. As a result, academic courses may not have the same relevance and be perceived as more restrictive for senior students as they would for students who are still forming career goals.

Career and Professional Perceptions

The second section focused on the career and professional perceptions of students. Specifically, the 13 items in this section were used to gather data about students' career perceptions and their expectations related to employment following graduation. Specifically, an attempt was made to ascertain whether the cooperative program was perceived as helpful in meeting the career and professional needs of those in the program. Table 5.5 outlines the results of this section.

Table 5.5

Career and Professional Perceptions of Total Sample

Variables	SA	A	N	D	SD	Mean
	Percentage					
Testing career options (26)	58.3	35.4	2.1	4.2	0	1.53
Improve job search skills (27)	46.9	43.8	5.2	3.1	1.0	1.66
In-depth knowledge of the field (32)	42.7	50.0	5.2	2.1	0	1.66
Improve employment chances (29)	42.7	42.7	9.4	5.2	0	1.76
Develop marketable skills (31)	35.4	45.8	13.5	5.2	0	1.86
Aware of issues in the field (38)	22.9	69.8	5.2	2.1	0	1.86
More likely to get job in chosen area (30)	35.4	41.7	18.8	4.2	0	1.90
Contact with prospective employers (35)	24.0	62.5	11.5	1.0	1.0	1.93
Understand realities of work place (33)	25.0	56.3	12.5	6.3	0	2.03
Wider choice of career options (37)	25.0	53.1	15.6	6.3	0	2.03
Co-op experience helped confirm career choice (36)	26.0	46.9	13.5	11.5	2.1	2.16
Meets career-development needs (28)	22.9	50.0	9.4	15.6	2.1	2.30
Greater possibility of higher starting salary (34)	4.2	26.0	41.7	26.0	2.1	2.96

It can be seen from Table 5.5 that, generally, the students in the sample were of the opinion that the cooperative physical education program was meeting their career and professional needs. A consistently higher percentage of the students agreed or strongly agreed with the statements as opposed to students who were neutral or disagreed. The highest percentages of agreement were seen for the following statements: "The co-op program provides opportunities for testing career options," "The co-op program improves job search skills," and "I am learning a great deal about the physical education/recreation field." Overall, 90% of respondents indicated that they agreed or strongly agreed with these three statements. Less agreement was found among students for a number of the other statements. For example, although the majority of the students held the view that the program met career-development needs, a significant percentage (13.6%) either disagreed or strongly disagreed with the statement. Similarly, when asked if the co-op program had confirmed their decision to choose a career in physical education/recreation, 17.7% indicated that they disagreed or strongly disagreed. The greatest percentage of disagreement was in response to the statement "I am more likely to earn a higher starting salary because of co-op experiences." Twenty-eight percent disagreed to some extent with this statement, while just 4.2% of all students strongly supported the notion. Interestingly, when comparing the views of the three classes, a 30% difference in response was evidenced between the second-year class, where 14.8% disagreed with the statement, and the senior class, where 44.8% disagreed. These differences in perceptions may be related to the fact that senior students who have had more work-term experiences are more likely to have formed stronger opinions about the "realities" of the workplace. An across-class analysis of questionnaire item 33 lends support to this argument. This comparison revealed that less than 5% of the senior class compared to 29% of the second-year class strongly supported the notion that the co-op program fosters an understanding of the realities of the workplace in physical education and recreation.

Work-Term Perceptions

The third section, which consisted of 27 statements, asked the respondents about their perceptions related to work-term experiences. The questionnaire dealt with a number of aspects of the work term; among them, the role of the work term in developing skills relative to the work-place environment, students' perceptions of the types of opportunities for learning in the workplace, students' perspectives on various collaborative activities within the cooperative program, and perceptions related to the work-term report.

Although the data collected permitted a comparison of the three classes of students, the tabular summaries as presented here are for the total sample. In some instances comparisons between classes may be made for purposes of identifying major differences in responses across groups. The responses were recorded using a 5-point Likert scale and are presented in the following tables.

Work-Term Skills

Table 5.6 presents the percentages and means of the students' perceptions related to a number of skills considered to be developed and refined during the work term.

The respondents' level of agreement for each of the survey questionnaire statements in this section was, overall, relatively high. The opportunity to develop leadership skills through the work-term experiences was seen as being of most importance, with 98.9% of the students indicating that they agreed or strongly agreed with the statement. The role of the work term in bridging the gap between academic, textbook learning, and the workplace received somewhat less support. However, because nearly 80% of the students agreed to some extent with the statement, it is apparent that this process is still considered to be a significant part of the work term from the perspective of the students.

Table 5.6

Perceptions of Skills Developed During the Work Term

Variables	Percentage SA	A	N	D	SD	Mean
Leadership skills (42)	60.4	38.5	1.0	0	0	1.40
Developing conflict resolution skills (65)	41.7	57.3	1.0	0	0	1.56
Practical skills (39)	32.2	62.5	3.1	2.1	0	1.73
Organizational skills (59)	38.5	54.2	3.1	3.1	1.0	1.73
Learning through trial & error (48)	36.5	47.9	11.5	4.2	0	1.80
Teamwork skills (63)	16.7	65.6	11.5	6.3	0	2.06
Linking textbook learning to the workplace (62)	16.7	62.5	13.5	6.3	1.0	2.13

Work-Term Learning Opportunities

Table 5.7 outlines the percentages and means of work-term learning opportunities as perceived by the co-op students.

As in the previous table, the findings were consistent, with the students' responses continuing to be highly favorable towards the work-term experiences offered in the program. The three foremost learning opportunities of the work term appear to be (a) those which help build confidence by allowing students to work on tasks without the need of supervision, (b) opportunities which provide students with useful knowledge outside the classroom, and (c) opportunities which may offer a unique learning situation such as working in a foreign country.

Table 5.7

Perceptions of Work-Term Opportunities for Learning

Variables	SA	A	N	D	SD	Mean
	Percentage					
Working unsupervised (64)	64.6	34.4	0	1.0	0	1.36
Gaining new knowledge (41)	61.5	36.5	0	2.1	0	1.40
Providing unique learning situations (45)	54.2	37.5	8.3	0	0	1.56
Modeling professional practice (46)	36.5	60.4	3.1	0	0	1.66
Providing alternative ways of thinking (43)	29.2	56.3	14.6	0	0	1.80
Refining skills (54)	16.7	66.7	11.5	5.2	0	2.03
Making courses relevant (40)	17.7	53.1	14.6	14.6	0	2.26

It is worth noting that when asked whether or not the work term helped make academic courses more relevant, 6.9% of the senior class strongly agreed, compared to 17.5% of the third-year class and 29.6% of the second-year class. This appears to correspond to the somewhat moderate level of agreement attributed to the importance of the work term in linking theory and practice as reported in the previous table, which showed only 16.7% of the total sample strongly agreeing with this perspective. It is possible that work term placements in areas other than physical education or recreation might have had an impact on students responses to this item of the questionnaire.

Collaborative Aspects of Work Terms

Table 5.8 presents the percentages and means for respondents perceptions of a number of collaborative aspects of the work term.

Table 5.8

Perceptions of Collaborative Aspects of the Work Term

	Percentage					
Variables	SA	A	N	D	SD	Mean
Informal discussions (49)	46.9	50.0	3.1	0	0	1.60
Mentoring role of supervisors (61)	24.0	52.1	16.7	4.2	3.1	2.10
Feedback on performance (51)	14.6	46.9	14.6	22.9	1.0	2.50
Communication between university, employer, student (52)	12.5	39.6	20.8	20.8	6.3	2.66
On-site visitations (53)	12.6	33.7	24.2	24.2	5.3	2.76

The mean scores for statements concerning the collaborative aspects of the cooperative program ranged from 1.60 to 2.76. With reference to the total sample, the students showed most agreement with the statement "Informal discussions with other workers during the work term provided valuable insights and understanding of the workplace," with 96.9% indicating that they either agreed or strongly agreed. However, the respondents rated the statements "Communication between university, employer, and student during the work term contribute to learning experiences" and "On-site visits during work terms help resolve any problems or concerns" significantly lower. Agreement levels for these two statements were 52.1% and 46.3%, respectively. In a comparison of the three classes, more than 41% of fourth-year students disagreed or strongly disagreed with the statements, whereas 25% of third-year students and 18% of second-year students disagreed. This suggests that students have decidedly different perceptions with respect to either the value of these activities or the frequency with which they occur within the cooperative program. It may well be that the resources, both human and financial, required to maintain these collaborative activities effectively are not at the present time being allocated.

Work-Term Report

The final aspect of the students' work experiences examined by the questionnaire was the work-term report. The work-term report for the students in the cooperative program is an exercise in which students produce a formal report related to some aspect of their work-term position. This has been predominately a research-oriented paper, an operational manual, or an evaluation of some aspect of their workplace. The report is an integral part of the work term in that the students must achieve a passing grade to complete the work term successfully. Table 5.9 summarizes the data on the perceptions of the benefits of the student-produced work-term reports in the cooperative program.

A comparison of the three classes revealed marginal agreement with the statement "The work-term reports are beneficial to the overall learning process in cooperative education," with 37% of the second-year students, 35% of the third-year students, and 41.4% of the fourth-year students in disagreement. Overall, 7.3% of the total sample strongly supported the statement, and 16.7% strongly disagreed.

Table 5.9

Comparison of Co-op Students' Perceptions of the Benefit of Work-Term Reports

	Percentage					
Class	SA	A	N	D	SD	Mean
2nd year	11.1	37.0	14.8	29.6	7.4	2.9
3rd year	7.5	40.0	17.5	15.0	20.0	3.0
4th year	3.4	27.6	27.6	20.7	20.7	3.3
Total	7.3	35.4	19.8	20.8	16.7	3.06

Analysis of somewhat related statement which asked students about their perceptions of the work-term report as a reflective endeavor indicated a similar unfavorable response as well. Thirty-seven percent of all second-year students, 32.5% of the third-year students, and 51.7% of the fourth-year students indicated that the work report was not viewed as a self-reflective process. Less than 8% of the total group strongly agreed with the statement. The somewhat unfavorable response to the questionnaire items concerning the work-term reports compared to other statements in the survey suggests that this area may be a common concern for a large percentage of the respondents. as mentioned previously, the researcher had intended to analyze work term reports submitted by students, under the assumption that these documents would be of a reflective nature. This, however, was not the case as the work term reports that were submitted were often technical reports and of little use to the research as a source of data.

In sum, the data revealed a narrow range of means within each of the tabular summaries of the students' perceptions related to the work-term experiences. It is clear that the respondents viewed the work term as essential in developing requisite employment-related skills for students in the cooperative program. The quantitative data analysis also reveals strong overall agreement and support for many of the learning opportunities which take place during the work term. On the other hand, lower student agreement on some of the collaborative aspects of the work term and lower ratings on statements regarding the work-term report appear to identify several shortcomings of the work term as it currently exists.

Personal and Interpersonal Perceptions

Section D of the questionnaire focused on a number of items dealing with the students' perceptions of personal and interpersonal elements pertinent to the cooperative program. Table 5.10 presents the percentages and means of a number of variables relative to this section.

Table 5.10

Personal and Interpersonal Perceptions Related to the Cooperative Program

Variables	Percentage SA	A	N	D	SD	Mean
Personal Perceptions:						
Follows healthy lifestyle (76)	53.1	44.8	2.1	0	0	1.46
Maintains exercise program (70)	51.1	42.6	4.3	2.1	0	1.60
Self-reliant (80)	37.5	54.2	7.3	1.0	0	1.73
Sense of well-being (79)	32.3	58.3	8.3	1.0	0	1.80
Increased confidence (66)	32.6	53.7	11.6	2.1	0	1.83
Accepting of criticism (82)	31.3	57.3	7.3	4.2	0	1.83
Improved self-esteem (68)	28.4	54.7	15.8	1.1	0	1.90
More tolerant (81)	17.7	57.3	18.8	6.3	0	2.13
Interpersonal Perceptions						
Enjoy meeting people (75)	46.9	47.9	4.2	1.0	0	1.60
Have support of friends (71)	43.8	49.0	7.3	0	0	1.66
Can get help with problems (67)	25.3	61.1	10.5	3.2	0	1.90
Socializes with classmates (74)	36.5	42.7	13.5	5.2	2.1	1.93
Best friends are in co-op (69)	28.4	40.4	23.4	13.8	2.1	2.40

The mean scores for variables related to personal perceptions of the total group ranged from 1.46 to 2.13. The highest levels of agreement were reported for the variables "maintaining a healthy and active lifestyle" (97.9%) and "taking time to exercise and work out regularly" (93.7%). This is not an unexpected finding, because students in physical education are fully aware of the benefits of an active lifestyle, have extensive opportunities to be active, and are required to participate in activity courses as part of the program's curriculum. Other variables which ranked highly included self-reliance and well-being. Eighty-eight students (91.7%) were in agreement with the statement "Being on my own during the work term has helped me develop my self-reliance," and 87 students (90.7%) supported the statement "I have a sense of well being and belonging." No major differences in the range of agreement and disagreement were identified when the variables across the three groups were compared.

Analysis of the interpersonal perceptions reveals that, as a group, over 90% of the students in the cooperative program felt that they could rely on the support of close friends. Interestingly, when asked whether their closest friends were in the co-op, 53.9% of the second-year class were in agreement, whereas 61.5% of the third-year students and 65.5% of the senior class agreed with the statement. This suggests that, over time, students develop closer friendships with classmates within the cooperative program, despite the discontinuity in social relationships caused by regular work-term assignments.

Learning Strategies in Cooperative Education

Questionnaire items 83 to 100 asked respondents to indicate the level of importance of 17 listed learning strategies in terms of acquiring new knowledge and skills during the cooperative program. Table 5.11 presents those variables, which have been ranked in order of perceived importance by the total sample.

The overall results from Table 5.11 indicate a highly consistent view of the various learning strategies on the range of importance. The following strategies were identified as the four most important through which respondents learned

Table 5.11

Level of Importance of Various Learning Strategies in Cooperative Education

	Percentage					
Variables	Very imp.	Somewhat imp.	Not very imp.	Not at all imp.	Mean	Rank
Skill practice	63.5	34.4	2.1	0	1.37	1
Challenging events	53.1	44.8	1.0	1.0	1.50	2
Discovery learning	56.3	38.5	5.2	0	1.53	3.5
Self-evaluation	50.0	46.9	3.1	0	1.53	3.5
Trial & error	47.9	44.8	4.2	3.1	1.60	5
Peer discussions	35.4	58.3	6.3	0	1.70	7.5
Reflection	33.3	62.5	3.1	1.0	1.70	7.5
Attending clinics	39.6	52.1	8.3	0	1.70	7.5
Observation	31.3	63.5	4.2	1.0	1.73	9
Earlier insights	38.5	47.9	12.5	1.0	1.76	10
Having a mentor	32.3	52.1	14.6	1.0	1.83	11
Experiential learning	33.3	51.0	13.5	2.1	1.87	12
Distressful experiences	26.0	54.2	17.7	2.1	1.93	13
Relying on required texts	24.0	56.3	17.7	2.1	2.00	14
Traditional methods	15.6	67.7	15.6	1.0	2.03	15
Class discussions	16.7	54.2	25.0	4.2	2.16	16
Formal writing activities	16.0	47.9	22.3	13.8	2.33	17

Note: The lower the mean, the greater the level of importance.

new knowledge and skills: (a) practicing and refining skills and techniques, (b) learning from events that were initially seen as difficult or challenging, (c) self-initiated exploration and discovery, and (d) critical self-evaluation of performance in the co-op. The mean scores for these five items ranged from 1.37 to 1..60. The four least important learning strategies were reading required texts, manuals, and documents, traditional classroom teaching/learning methods;

in-class group discussions; and formal journal and report writing, with mean scores of 2.00, 2.03, 2.16, and 2.33, respectively. Even though the majority of the sample considered all strategies to be important (63.9% of the students still ranked the lowest variable, journal and report writing, as important), Results reveal that formal learning methods were all rated lower in importance than other more informal methods of learning. The clustering of informal, nontraditional learning strategies at a higher level of importance than the formal, traditional strategies may underscore the pragmatic value of experiential-based learning strategies as perceived by students in the cooperative program.

Learning Obstacles in Cooperative Education

This section of the questionnaire was concerned with examining some of the prevailing conditions or circumstances that inhibit or hinder learning in the cooperative program. Both internal obstacles, which come from unique personal experiences, and external obstacles, which stem from the environmental and the social context of the situation, were presented to students for consideration.

When Table 5.12 is reviewed, it is apparent that a number of external obstacles were perceived by students as not being serious impediments to learning in the cooperative program. Table 5.12 shows that the three least likely conditions to be perceived as obstacles as reported by the total sample were (a) sustaining an injury or becoming ill, (b) lack of previous experience in recreation and sport, and (c) inadequate physical skills and abilities in these areas. The means for these three variables were 3.66, 3.76, and 3.80, respectively. The students in the program reported that they followed a healthy, active lifestyle, which would tend to diminish the likelihood that health and fitness would be considered an issue with respect to learning. These results were consistent across all three classes and confirm the assumption that students who are admitted to the program enter with a certain level of fundamental physical skills and abilities and throughout the program practice and refine these skills. Thus the students considered these conditions to be infrequent impediments to learning.

Table 5.12

Perceived Obstacles to Learning in Cooperative Education

Variables	Percentage Always	 Most of the Time	 Sometimes	 Never	Mean	Rank
Unclear expectations	3.2	15.8	62.1	18.9	3.00	1
Inadequate learning resources	0	16.8	63.2	20.0	3.03	2
Lack of financial resources	0	21.3	50.0	28.7	3.10	3
Outside pressures; i.e., job, family	3.2	7.4	60.6	28.7	3.16	4
Pressures of meeting deadlines	1.1	6.4	58.5	34.0	3.25	5
Not motivated	0	6.4	59.6	34.0	3.30	6.5
Too heavy a course load	1.1	8.5	54.3	36.2	3.30	6.5
Lack of preparation time	0	5.2	59.4	35.4	3.33	8.5
Negative past experiences	1.1	5.3	61.7	31.9	3.33	8.5
Lack of self-confidence	0	3.2	51.6	45.2	3.43	10
Fear of failure	1.1	1.1	46.7	51.1	3.50	11
Personal injury or illness	0	4.3	25.0	70.7	3.66	12
Lack of recreation/sport background	0	1.1	25.3	73.6	3.76	13
Lack of physical skills and abilities	1.1	1.1	18.3	79.6	3.80	14

Note: The means are reversed: The higher the mean, the less likely it was perceived as an obstacle.

The conditions which were most often perceived as obstacles to learning in the cooperative program were (a) unclear expectations, (b) inadequate learning resources, and (c) lack of financial resources. The means were 3.00, 3.03, and 3.10, respectively. A comparison of the three groups' perceptions of the most prevalent and the least prevalent obstacles to learning also suggested a high degree of consistency among the three classes. The one exception found in the data was that "negative past experiences" was ranked second by second-year students as an obstacle to learning, with a mean of 3.10.

Open-Ended Questions

A content analysis of research participants' written responses to five open-ended questions was completed. The open-ended questions used to gather data for this section of the research project are listed as follows:

1. What do you feel are the most valuable learning experiences of your involvement in the cooperative physical education/recreation program?
2. Where do you feel the most valuable learning takes place in the cooperative physical education/recreation program?
3. What strategies do you most often use to acquire new knowledge and to learn new skills during the co-op program?
4. If you had the option of enrolling in a cooperative program or a non-co-op program, which one would you choose? Why?
5. Would you recommend the co-op program to others? Why?

Table 5.13 lists the content categories for the open-ended questions and the percentage of responses in each category. Question 1, which sought to identify the most valuable learning experiences of the cooperative program, resulted in 140 recorded responses. A content analysis summarized the responses into three categories: (a) practical, work-related experiences;

Table 5.13

Content Analysis of Open-Ended Questions

Question	Content categories of responses	Percentage
1. Most valuable learning experiences?	Practical career/work related	51.4
	Academic related	17.1
	Personal competency related	31.4
2. Where does learning occur?	Work term	51.0
	Academic term	20.2
	Combination of both	23.4
	Other	5.3
3. Learning strategies?	Problem-solving strategies	25.9
	Self-initiated strategies	13.5
	Reflection, self-evaluation	5.7
	Traditional approaches	28.8
	Personal interaction	26.0
4. Which option?	Co-op	93.6
	Non-co-op	4.2
	Undecided	2.1
5. Recommend program?	Yes	92.6
	No	3.1
	Undecided	4.2

(b) academic-related experiences; and (c) experiences related to the development of personal competency.

The majority of students perceived practical experience as the most valuable and cited such work-term activities as practicing career- and work-related skills, opportunities to try different career options, and opportunities in which job search skills could be refined.

Academic activities such as class presentations, group work, peer teaching, and being exposed to course content relevant to career choice were examples reported by 17.1% of the students, who felt that academic events were of most value to them with regard to their involvement in the cooperative physical education/recreation program.

The most valuable learning experiences for 31.4% of the respondents were related to refining skills and proficiencies of personal competence. Formal as well as informal learning experiences were included in this category. Activities which encouraged team work and refined time-management skills and leadership and communication abilities, as well as experiences which developed social skills and self-confidence, were regarded as important learning experiences for developing personal competence.

Question 2 focused on where the most valuable learning experiences take place in the cooperative program. A total of 94 responses resulted in the emergence of four main areas: (a) work terms, (b) academic semesters, (c) combined work and academic terms, and (d) other. A number of respondents suggested that the most valuable learning for them occurs outside the co-op environment, such as in a part-time job or working with volunteer groups. These were listed under the category of "other."

Not surprisingly, the majority of students, 51.0%, indicated that the environment where the most valuable learning took place was the work term. This supports the findings of Question 1, in which 51.4% of the students reported that "on-the-job" experiences were most worthwhile. One particular response seemed to summarize the views of nearly all of the students in this group: "Work terms provide you with the opportunity to apply your knowledge, learn new ways of doing things, develop confidence [while] in the workplace, and also help you mature as an individual. In addition, the work terms give you an idea of the reality of life and how things are in the real world."

For some the most valuable learning occurred during the academic semesters. The students reported that practical sport and physical activity skills and techniques, teaching strategies and methodologies, and teamwork and collaborative skills were all best learned in the academic environment.

Less than 25% of respondents perceived the most valuable learning as taking place through a combination of both work terms and academic terms, suggesting that all learning in the cooperative program is interrelated and that one cannot appreciate the value of theory without some practical experience. Likewise, experience alone does not provide all elements of learning.

In summary, the first two questions suggest that the students were in general agreement about which experiences are of most value. Even though some chose to identify either the work term or the academic setting as the site for this learning and others suggested a combination of both, they consistently identified the application of theory and the practice of skills as the basis for and central to learning in the cooperative program.

Question 3, which asked students about the learning strategies they most often used to acquire new knowledge and learn new skills, resulted in 104 recorded responses. These have been categorized into five subheadings: (a) problem solving, (b) self-initiated strategies, (c) reflection and self-evaluation, (d) traditional approaches, and (e) personal interaction.

In general, during academic semesters co-op students still appear to rely on traditional academic strategies for learning such as careful note taking, routinely studying course texts, and being a "good" listener more than engaging in a reflective or self-evaluative mode of learning. The students also reported that problem solving and taking a trial-and-error approach were strategies more often used during the work terms. Along with these strategies, the students indicated that personal interaction and "networking" with professors, classmates, and co-workers were important in learning new skills and gaining new knowledge in the co-op program.

Question 4 asked the respondents whether or not they would choose a cooperative program if given an option. Over 90% indicated that they would enroll in a cooperative rather than a non-co-op program. Many of the students suggested that the work-term experience, the opportunity to practice and refine career-related skills, and the wide variety of learning activities offered throughout the program were components of the program that served to convince them.

Question 5 asked students if they would recommend the co-op program to others. Not unexpectedly, more than 90% of the respondents indicated that they would recommend the program, frequently citing such reasons as the quality of the program, the work-term experiences, and the opportunities to apply what was being learned in the classroom to work-place situations. Thus Questions 4 and 5 confirm the strong, if not overwhelming, support for the cooperative program by the research participants.

To summarize the responses from the open-ended questions, the respondents reported a range of experiences which were considered valuable to them in learning in the cooperative program. Commonly held views of students who argued that work terms provide exceptional opportunities for learning career-related skills appear to be supported by the findings. Experiences which combine theory and practice within the program are also perceived as important elements to the overall learning environment of the cooperative program.

Qualitative Findings

The purpose of the qualitative interviews and the focus-group discussion, as mentioned previously, was to obtain information of a descriptive nature about the phenomenon under study in an attempt to understand in more depth and detail the "lived-in world" of students in a cooperative education program. As well, it was felt that the interviews would yield qualitative data that previously had not been published in documented research which focused on cooperative programs in physical education. It is this lack of qualitative data in the research literature that makes the current findings all the more noteworthy.

Although the researcher utilized a series of questions to guide the interview process, a flexible approach was taken to give respondents the freedom to discuss other subject matters which they felt were relevant and important to the topic under discussion.

To facilitate the presentation and continuity of the qualitative data, the researcher took the liberty of organizing the interview findings into a format which loosely complemented several of the categories examined by the questionnaire. As such, the data gleaned from the 15 informants who participated in this study were merged into two general categories, the academic semesters and the work terms. Within these two general categories a number of dominant themes emerged, which are presented and highlighted in the following section. The common themes presented under the academic semester category included students' expectations of the academic curriculum, interpersonal relationships, academic learning approaches, academic skills, and learning obstacles and challenges. Several prevalent themes highlighted under the work terms included students' perceptions of the value of the work terms, challenges and obstacles, interpersonal relationships, and learning strategies. It should be noted, however, that these thematic categories are not mutually exclusive, as a degree of conceptual overlap exists in the emergent themes. Although the researcher's interpretative statements are woven into the text, every effort was made to present the students' perceptions of their experiences in the cooperative program using their own words.

Student Informant Profile

The participants were selected from a group of students who had previously agreed to participate in the in-depth interview. A total of 14 students, 6 males and 8 females, participated in the interviews and focus group discussion. Three students agreed to be interviewed individually, and six students elected to be interviewed in pairs. A total of six students participated in the focus-group discussion. Those selected were felt to be representative of the sample population, with subjects drawn from three co-op classes. All students participating in the interviews had completed at least two work terms and at least three of the six academic semesters. The informants were all single and ranged in age from 21 to 25, with the majority being in the 22-year-old age group. Four of the students had grown up in the local area, and the rest were from small to moderate-sized communities located throughout the province.

Nearly all of the students were actively involved in some kind of extracurricular activity, either as a student representative on a committee or as part of a formally organized university activity. Four of the interviewees were members of the university varsity sports teams. Whereas the academic backgrounds were not significantly different, work-term experiences for the group varied considerably. Local fitness centers accounted for the most common work-term placement. However, students reported working in such diverse areas as a private school, an adult correctional institution, a summer camp for the disabled, a telemarketing company, a physiotherapy clinic, and as a work-term exchange student at another university which offered a similar physical education cooperative program.

Academic Perceptions

Students' Expectations of the Co-op Curriculum

In discussing their perceptions of the academic component of the program, the students were often influenced by their expectations and motivations for being in the program. It was apparent from the data analysis that students entered the program with various expectations related to a future career in some specific area of the physical education or recreation fields. It also became clear from the interviews that opinions and perceptions of academic experiences were often dominated by a focus on what tangible benefits the program might have for them in so far as acquiring knowledge and career goals were concerned.

One student who had previously completed an undergraduate degree in psychology was quite specific about his expectations regarding the cooperative program:

> Basically, to make the story short, I wanted to do phys ed from day one, but, financially speaking, my parents were my only source of backing. They thought the main point of phys ed was teaching, and they didn't think there was a market for it, so they wouldn't pay for it. So basically I had to find an alternative, and at that point I was taking sport psychology, started . . . and went through a cycle, and realized it just wasn't for me being stuck behind a desk, doing that kind of work, and I was more of an active type of person and I always wanted to—as soon as I was capable within six months of becoming an independent student, I registered for the program, and from here I now know what I want to do. I knew what I wanted from it. I took all the courses that would put me more toward the kinesiology degree, as opposed to a general phys ed degree.

Another student explained that the co-op program met his career goals because his interest was also in the exercise sciences area:

> I was lucky I got into an area that I was interested in. The reason I found it rewarding was because I got to learn so much about the exercise sciences. I love the sciences, human movement, body mechanics . . . and what not, care of injuries. I really took a liking to those rather than the other ones, the psych, the sociology, and the other areas, the stats side of physical education.

However, one student was not as definite about her expectations upon entering the program:

> When I came in I didn't know what to expect really. Kinda like what J said about the sciences. I guess my work terms where I worked with . . . I realized I wanted to go into something in that area, athlete training or therapy or physio, something along those lines.

At least one student made the decision to pursue the recreation degree as a career option only after being in the program for some time:

> My first year I was sort of . . . they gave me a sheet: "Are you doing recreation? Are you doing general? Are you doing teaching?" To me that was very, very vague. I said, "Well, I don't want to teach phys ed. I don't know what the general option is, so I guess I will go into the recreation stream. So for me, that's the way I found, in my second and third year, a career path. But I developed it myself.

Not surprisingly, most of the informants who had been in the program for a number of years had rather clearly defined notions regarding expectations of the academic curriculum. When asked about these expectations, the students would inevitably make suggestions for improving the program. Several students took the view that the curriculum should be expanded to allow more flexibility and choice within the courses being offered. One student suggested that

> I would have a separate program here for kinesiology, for people with an interest in science, whether it is an exercise science, whether it be physiology, biomechanics that kind of thing. Because right now I know it's needing something that's been neglected up to this point. Exercise wasn't looked upon fondly 20, 25 years ago. Weight training, being a personal trainer, wasn't big 20 years ago. And now its progressing and people realize there's a science involved. I think it's something that maybe we've been neglecting to an extent. Bring in some new courses with respect to the exercise sciences and that sort of thing.

Another proposed having more career options within the program:

> It could be more rewarding if it had, if you could come in with three options, an option of education—which I think will be obsolete in the future—you can have an option of leisure, and you can have a science option.

One student was somewhat critical of the program because students in the teaching option were required to complete an education degree following their physical education program:

> That's something that really irks me, that I got my phys ed degree and I can't teach till I go do education. Really, I think that should be combined within our program.

As such, it was inevitable that the views of the students in the program were driven in large measure by these notions and preconceptions of the curriculum. Although a number of students were somewhat critical of the academic curriculum and suggested areas where improvements might be made, most of the interviewees felt that their academic semesters were important in terms of developing academic skills and competencies. A majority of the students mentioned that their academic development and success were also inextricably linked to the close rapport with other students, faculty, and staff.

Relationships During Academic Terms

For many students in a university setting, establishing any kind of relationship with others during their academic courses is made difficult by the fact that classes typically have large enrollments, provide little opportunity for personal interaction, and are comprised of students with few common interests. The informants in this study, however, spoke extensively of the relationships that existed among students, faculty members, co-op staff, and others, including workplace supervisors and co-workers. How these personal relationships developed and influenced their learning experiences in the cooperative program is presented in this section.

Relationships between students. Students in the co-op program spend a considerable amount of time together during the academic semesters, taking the same courses and being involved in numerous activities connected with their academic studies. When asked how such social circumstances affected them, the students reported that it created a sense of togetherness, which was perceived as one of the most positive aspects of the co-op program. A focus-group member supported this notion of closeness:

> I like the small numbers. It gives you a closeness, I find, a lot like high school, 'cause we started out as a group of about 40, so we got a really good ratio between teachers and students. So it's more personal, more interactive.

The importance of belonging is also evident in the following accounts:

> We are in so many classes together for the first two semesters, 10 courses together, and like you said, most of us were coming in and didn't know anybody in the class. I think the [orientation] activities helped us loosen up. That definitely helps you learn to laugh at each other and at yourself. You feel more relaxed, and I think just familiarity, seeing each other. You learn a lot about each other; there's a lot of socializing. I think that . . . small numbers, it's easy to get together, to say, "Hey, listen! I'm having a party Friday night. You are all welcome to come." But I guess in a larger faculty like psychology or something, you know, that would be impossible to get that closeness.
>
> So a lot of people do take advantage of those outside-of-class things, like the party and not even that, like a lot of us spend—you know, who you get along with and who you can confide in and spend a lot of time together outside of class. We all exercise together. A lot of people set up schedules to work out together, to play squash together, swim. Those are the things that help us feel closer then, and that's one of the things that I love about this place, is that before I was just another general studies student in a class of 15,000, and now I feel, I know where I belong.

Several of the students referred to the orientation session held at the beginning of the fall semester for entering students as one of the key experiences for initiating a sense of affiliation and the group building process that goes on in the cooperative program and contributes to the establishment of a bond among those in the group:

> I was by myself. I came in from nowhere, and there were some other people that I had seen from working around here before I got into the program. But I just came from nowhere, and the Lav Rock [location of the orientation session] experience was great for me because I got to see some faces and then warmed up because we had the overnight camping trip the

> next weekend. So I guess it's the social setting and being together every day. We had four classes and one elective after the first semester, so four or five classes of phys ed we were always together. So that togetherness helped me.

The students also commented that the close relationships among students went beyond the social activities and were sometimes used as a strategy to assist one another in coping with the time demands and pressures of the academic terms:

> We have to learn to work together, because it is so challenging—especially our first year, where we have no time-management skills. And the activities, you have to work in groups, projects, things like this. The [academic] courses are the same thing. We have to work together, hopefully like each other and get along well.

Another student saw the group relationship as an opportunity to share co-op experiences and to learn how others might handle particular situations during the work terms:

> I think it would be something to take away anytime [we have these discussions] just because everyone is going to have a different twist on things, and I think in a class of 45 or 50, that there should be numerous encounters and/or difficulties that have to be overcome and/or dealt with and in how to go about that. I mean, for future purposes. You never know when a situation is going to arise, and if you see a variety of situations and what the resolutions were and how it was done, I think that would be something positive to take away.

One student, when asked what his perceptions were of the value of having a close relationship with others in the co-op program, simply stated, "Personally, I don't think I would have ever gotten through this semester if there wasn't help from my peers."

There was no doubt that the interpersonal relationships among students were often perceived as being of significant benefit to them with respect to their progress and success during academic semesters. There was, however, the suggestion that this was sometimes exploited by students who used the group simply as a means to achieve passing grades in their courses:

> Sometimes I needed a helping hand in some other courses, and luckily for me, there were some other phys ed students with me, and I probably wouldn't have got through those courses if they hadn't been with me. Funny as it may seem, but sometimes it was taken advantage of, where some people in the groups over the years would slack, and there's some students that got through this program just because of the group setting, like lagging behind, just catching up at the end, getting the marks at the end.

It appears that underlying the fraternal relationships in the cooperative program is the belief that there are often some personal advantages to be gained through an affiliation with other class members. As one student observed while reflecting on his lack of a science background:

> The [science-based courses] were something that was a personal challenge for myself to try and even get a pass. If it wasn't for some of my classmates, I probably wouldn't be in the faculty now.

When asked how groups dealt with conflicts and disagreements, one student said it was usually settled in an informal way:

> If there was a problem, then those people were told that there is a problem. Or if there is a problem with the group setting and they didn't want to be part of it, then it was, . . . "Okay, then, don't hang with us or don't . . . . It's up to you." And we always gave people that option, but I think, going back to what you were getting at earlier, I think the work term helped a lot in that because it was either stick together every semester or we probably would've killed each other. We came close to it in the last semester, but because of the work terms which spread us out, when we were brought together again we all had something new.

Relationships among students were thus perceived as informal structures, however there is evidence to suggest that the student-to-student interactions and the support given to one another in the co-op program might not be as evident in other non-cooperative programs.

Relationships with faculty. In general, student informants were united in their perceptions regarding the program's faculty. Students were of the opinion that the physical education faculty had a genuine interest in the overall academic progress of the students. As the following comment suggests, most professors were perceived as willing to assist students during their academic program. This is evident from the following quotations:

> I think most of the professors here are looking to help you get the most out of what you can do, one way or the other; however they manage to do it is a . . . special thing. But most of them, . . . some of the professors are here, not in this faculty, but in this University, to teach, collect a pay cheque, and go home. But the professors here are here to help out and are concerned about the success or failure of the student.

> I think we got an advantage here over the rest of the University. The staff, co-op staff, and faculty pay more attention to the students in their progress and not necessarily I mean by that by pushing them along, but I mean sometimes giving them a hand where they need it. Other faculties that I've had, like biology, each student is basically a number, and professors don't know if the students are even part of the biology faculty.

It was also clear from the interviews that the students saw faculty and staff in roles that extended beyond their capacity as educators. Some of the terms that students used to describe "their" professors were *mentor, tutor, adviser, counselor,* and *role model.* There seemed to be an understanding among the students interviewed that the relatively small size of the faculty was one of the reasons why students had such a close rapport with faculty:

> Some of the profs, just going through some of the bigger classes and whatnot, and seeing—take psychology for example, 347 in one class and one teacher up on the big screen. So I mean, the classes that I take [in physical education], the professors seem human. You can talk to them.

According to one student, the small number of professors on the faculty also contributed to a sense of closeness:

> A lot of times you get the same professor, like two or three times throughout, and maybe more, because most of them teach components of the activities courses as well, so you get to know them. Yesterday we talked about this whole thing, and I said right now I feel comfortable just about going to any faculty member and asking for a reference or a letter or whatever. I know they know me. So I think that's a great asset that I'd miss if it wasn't there. I don't feel like—I don't want to be just a number in a big faculty.

Still another student, recounting a time of personal crisis, expressed the view that the support and counseling she received from various members of the faculty during that time were instrumental in helping her cope with the situation and remain in the program:

> My mother passed away two summers ago, but I still can't see how I did it in the first place. I guess I really only got through it with the help from faculty.

Another example of the close personal interaction and rapport between faculty and students is mirrored in the following conversation:

> Student A: So I mean, myself and a friend of mine from education went to the scholarship awards ceremonies, and she had an award for education. And Dr. R. was there, and after he comes over and starts to talk to me. And after she says, "Who's that?" And I said, "Well, that's the dean of our school."
>
> Student B: And that carries over. Dr. H is a better example of that. Dr. R. had this business approach to him, but he still knew who you were. Sometimes he did mix up names, and that's just his own persona. But Dr. H. is even stronger in that area, where he likes to be at the student level, and he's successful at that. He can maintain a direct position, plus he's also successful with the students because sometimes you can get into a bit of trouble if you get too close to students and be taken advantage of, but he seems to maintain that easily.

For the most part, students drew on examples from a wide range of personal interactions that occurred in the cooperative program to describe the relationship between the students and the faculty.

This section gave some insights into several of the more significant relationships that comprise a student's academic lifeworld. For the majority of the student informants, their relationships with other students during the academic sessions played a significant role in their success and adjustment to the demands of the co-op program. This appears to support the available research in this area which suggested that in terms of personal development, co-op students were found to be well adjusted to university life and that the unique opportunities for interpersonal relationships in a cooperative program can lead to increased self esteem and self confidence. Although it is not explicit, these relationships help foster interpersonal and communication skills which are recognized as necessary attributes for students in order to develop into a professional in the field. Student relationships and rapport with their professors in the small, close-knit faculty were also perceived as strengths of the cooperative program.

Academic Learning Approaches

This section describes students' perceptions of academic learning strategies employed in the cooperative program. Student informants identified a number of approaches used to facilitate learning during the academic terms. One of the more commonly employed learning strategies appeared to be the use of unstructured, informal collaborative activities with other students in the program. As two students explained to the researcher:

> Student 1: I mean, we don't sit down and say, "Okay, we will meet tonight and talk about how to plan the semester." Informally, if we are in the shower or in the change rooms we will say, "I got this, this, this, and this to do next week, so I will start on this now." Or especially if we are working in groups, sure, our group can get together and say, "Okay, these research papers, we got this to do; can we get together?"
>
> Researcher: So do you meet regularly? Does this happen?
>
> Student 2: Not necessarily.
>
> Student 1: Not formally. Sure, if an exam is coming up we will get together.
>
> Student 2: Everyone takes a chapter of notes.
>
> Student 1: And passes 'em in.
>
> Student 2: Photocopy them. Everyone takes one chapter home. We'll meet in the morning and photocopy it and move on to study.

Other students interviewed reported that a group approach was often used to assist students who were having difficulties with a course:

> There's a lot of group work that you do, a lot of individual work too. But if someone is having trouble with an activity or even with a course—like myself, I had some trouble getting through some of the science courses. It

> was never my strongest point, but a couple of people in the class—helping each other out, and it's reciprocated back and forth, just trying to help each other get through it if you have any troubles. I mean, we do a lot of group work and a lot of group-oriented tasks.
>
> Ask each other questions and, you know, we were doing that last year for biology, we were talking after an activities class, all the girls. We would be in the locker room after and would be asking each other questions about—about what is this or what are the characteristics . . . of this and so on. Little things like that. I find when I hear someone else say it, I will probably remember it a little better.
>
> So yes, I've had to develop my time-management skills and, you know, like you mentioned yesterday, some group studying, sometimes that helps, like for science courses. For me, I'm doing a teaching stream. I don't know, at times I wondered what I was doing these science courses for. Those are the courses I found most challenging, and I had—and I don't think I ever studied alone for those because a lot of us got . . . from each other to sort of reinforce. In one respect somebody else might be able to help on something that I'm having trouble with, so we helped each other, a lot of support. I mean, obviously with the courses, I feel like we can . . . class, and if I need help on an assignment or help with studying, they're there to help.

Students in the focus group, when asked about their learning strategies, reinforced this idea of an informal collaborative approach to learning during the academic semester. This is clear in the following exchange:

> Female voice: You have your textbooks, your lectures, your labs; but mostly it's just listening to your prof. Not only that, a lot of the time it's in your book anyway, so you can just study it.
>
> Researcher: Okay, so these traditional approaches are the ones that seem to work for you?
>
> Female voice: Yes, but also your traditional study groups.
>
> Female voice We do a lot of group study and application work for physiology and stuff. I find a lot of times when we study, we try to apply it to such things that are applicable, like a biceps curl. I try to use a lot of application, try to relate it to something you know.
>
> Researcher: You mention group study, is this a formal part—?
>
> Female voice: No, no, it's on our own.
>
> Researcher: So it's an informal thing?
>
> Male voice: Sometimes we all work together on a project.
>
> Researcher: Do you find that approach works best?

> Female voice: It depends on the course.
>
> Male voice: Depends on what group you get.
>
> Female voice: The group and the course too.
>
> Female voice: Personalities.
>
> Researcher: Do you know any students who have formed a formal study group where each member would be responsible for certain parts of the course content?
>
> Female voice: Except for the research course. But it's a group you pick yourself.
>
> Female voice: No, we all just work at it together.
>
> Female voice: Usually there's always some people that always tend to stick together; you find you can study better together. I know myself, . . . I know people that I probably would want to get together with, get something done, . . . study lots. It's just the way it goes.
>
> Male voice: Someone is going to get stuck with them.
>
> Female voice: Yeah, there's always a tagalong.

When asked about more structured approaches to learning, several of the students described how, over a number of academic semesters, they began to develop and rely on several organizational strategies to improve their learning. These included learning to manage their time more effectively, not leaving things until the last minute, and establishing a daily schedule. The following comments illustrate this point:

> I look back on it now and say, "Holy, my time-management skills and organizational skills back then were horrible," and now I do use them. Now I have a better sense of what needs to get done. I can get everything in and on time. Now it's more about using time management and planning and things like this, but in my first year starting out I didn't know anything about it.

This was supported by another student, who commented:

> Well, time management is the same thing as planning. You don't want to leave everything to the last minute, so it's that everything comes at you, boom! But it's the bits and pieces that you have to take care of straight throughout. So if you fall behind and you're not paying attention, you are going to get kicked for it later.

Still other students, in describing their previous experiences, reflected that:

> I never did it before, but in previous years when I wasn't in phys ed, it was just like you have a test here and here, but when I went into phys ed you have so many other things you got to do, smaller commitments and stuff. It could be peer teaching in the morning, group in the evening, and an exam the same day. You've just got to plot out what exactly is going to unfold for you week after week. I didn't do that before, but I find I had to because of mistakes I made in the first couple of semesters; it was just too much work. So I manage my schedule.

> I find it much easier in this faculty than I did in the psychology faculty to get work accomplished. Even though maybe I spend more time in here, and have less time for myself, I just find it much easier to get it done. Part of it is personal interest, part of it is being able to manage time much more effectively because you have no choice.

Comments from two students indicated their strategies for learning began initially with self-exploration and later included the support of a faculty member who was also involved in their particular career interest:

> I knew a fair bit about the exercise sciences just because I was interested in it and did some reading in that field. I find that Dr. B. was very helpful towards me, and I find he's really good because he makes things practical. I kinda liked that.

> Along with the other stuff I used to read a lot within the exercise sciences. I read a lot of journal articles and magazines pertaining to sprint training as well as nutritional supplements and stuff like that. But as far as mentoring and that, myself and C. . . . both have the same ideas on training, so we basically at first stuck—then D. came, and because he's involved in an area where I find it really interesting—and the best way to learn in an area like that is from someone who knows the best, who knows the most about it. So that's who I would regard, even still now as a mentor. Like, I'm using him as my supervisor for my other [honors] semester.

Several students who were interviewed indicated they took a somewhat more reflective approach toward learning in the academic semesters. As one student pointed out:

> I reflect on what I've done over the last three years, sort of go back and I think about things I did before and say, "Okay, can I apply them now or in the future?" Or I just reflect on the positive experience, I guess, of physical education itself. But again, I think mostly if something is important to me I sort of get into that reflective mode, or I do it because of

> the experiences I've had which are good, and I do it because sometimes it's necessary. I need to reflect back on what I've done before because it's important for what I'm doing now.

The students went on to suggest that one also needs to make a link between the academic learning and work experience:

> I mean, you can learn as much academic information as you want, but if you can't link it to something that you've done or want to do, then I think you are sort of missing something.

When questioned about the kind of skills they learned during the academic semesters, the students tended to focus their answers around academic courses recently completed and on skills they learned which related directly to their career goals. For example, the students mentioned an activities course which gave them specific skills in canoeing, backpacking, and rock climbing, and described a just-completed research course which provided them with the knowledge to conduct a small research project. Several of the informants, however, reported that too much of the academic learning is theoretical, artificial, and not relevant to their training and career needs. However, the students did acknowledge that some valuable skills were gained in the academic terms such as those skills related to their career choice. The informants generally agreed, when questioned further, that although academic learning constituted a significant role in developing career skills, the academic semesters did not have as profound an influence on learning career-related skills as the work-term experiences.

Obstacles and Challenges in Academic Semesters

Even though students were generally satisfied with the co-op program's academic curriculum, a number of subthemes emerged from the data that might be regarded as obstacles and challenges to learning in the academic setting.

In discussing what they perceived to be some of the biggest obstacles of the academic semesters, a number of students referred to the academic work load and course scheduling as areas which at times created difficulties and impacted upon their learning:

> I remember the first semester I was here, we said there's just no way we are going to be able to do all the work. I think the biggest thing with phys ed is that you do a lot, but not necessarily really, really hard work. It's a big commitment with respect to how much you actually put in, activities, labs, or whatever, group projects and stuff like that. But I don't think it's like biochemistry. You know, you don't have to spend hours and hours at it; you just got to allot time to get things done because of the way things are scheduled for us.

Several students who were interviewed indicated that the academic schedule during one particular semester was a major impediment to learning. The semester in question required students in the teaching option of the program to take a curriculum course which had peer-teaching labs during the first six weeks of the semester and a school placement during the last six weeks of the semester. Combined with a full course load, the students felt that the number of in-class hours and school-placement hours (approximately 30) left very little time to devote to assignments and study. As one student noted:

> That had to be the worst semester. It was like, help! I can say that the rest of the semesters weren't as difficult or can't be handled, but there's a lot of controversy with that particular semester, with the curriculum course.

At least one student observed that he perceived faculty enforced attendance requirements in some classes as a major obstacle for him:

> It forced me into a situation I had not been familiar with. Up to that point I would go to classes whenever I felt like it, and I still to a point don't go. Maybe I take classes off that I shouldn't, but I'm certainly more focused now than I used to be. Its simply because many of the courses have a mandatory requirement, and to be honest, I think, . . . sometimes at 8:00 a.m., I'm going, Oh God, you have got to go! I force myself to go. I think I've learned to be much better at being a professional.

For several students in the interviews, outside activities such as being a student representative on committees and participating in extracurricular activities, while personally fulfilling, sometimes had a detrimental effect on their academic grades:

> Academic-wise, my grades, I'm average, but I think that extracurricular activities with committees and stuff, I enjoy those things and I enjoy giving back and getting involved actively, and that's really important to me. My boyfriend he doesn't—he's totally academic and his grades are wonderful, but, I mean, I suffer, my grades suffer because of my extra involvements, I think. That's the choice I've made.

Although most of the students perceived the academic courses as beneficial to their training and development, one particular area of the curriculum drew criticism from a number of students. Students who were in the teacher preparation component of the program, during interviews, reported that the physical activities and sport-specific courses were oftentimes inadequate with respect to meeting their career goals. The physical activity courses are a required component of the cooperative program. These courses are developed around movement themes and concepts and include such activity categories as combatives, territorial games, net games, aquatics, outdoor activities, and target games, among others. Students are exposed to a number of sports and activities within each theme. For example, in the territorial games course students receive instruction in basketball, rugby, handball, and soccer. For several students the lack of flexibility in these courses presented some difficulties:

> To an extent, the activities courses for me, in particular, were, for the most part, useless. I shouldn't say useless; that might be the wrong term. But it was never hardly explained to me. I'll never be in a teaching situation. I don't mind the activity itself, but the course requirements might have changed, because it should be a little more flexible. I know last semester I was doing basketball and soccer and that type of thing, and they had me doing lesson plans as opposed to giving me an option to do something in the fitness program. So for me, what I wanted to take away from the activities courses was to learn the skills and drills and relate them to an aerobic capacity, that kind of thing, exercise science, as opposed to

> teaching skills. Even though it may have been useful to an extent, it's not the most useful aspect for me.

For others, the amount of time devoted to learning a number of the sports or activities was often not sufficient for students to feel competent to teach or instruct that particular activity:

> I find for some of the sports it was absolutely useless, because you can say, "We learned this, and here's how to do it," but in actual fact when you got out into the real world, unless you had certification before and the knowledge and know-how to use it, then it was pretty much useless. You take the swimming or volleyball or basketball, where you actually get the certification, you learn the basic fundamentals and the skills, so even if you're not as fundamentally sound as, say, an athlete, you still know what you're doing. So getting something that you can actually use in a practical sense versus getting three days of one sport and then saying, "Okay, you know it."

Activity courses which offered a coaching or instructors certification were perceived by students as more useful to them than courses which were seen as simply an introduction to a number of the basic skills and techniques of a sport. The students were most critical of the activities for their lack of substance and depth coupled with a failure to present sufficient instructional and teaching methodologies during the courses.

In summary, it is not surprising, given the close-knit environment of the cooperative program, that the academic program represents an important time for the development of socialization and interpersonal skills. The students appear to have assumed much of the responsibility for their learning over the course of the program and initiated a number of collaborative activities and approaches to support their academic endeavors. Students learn, through these collaborative ventures, to communicate, to think critically, to solve problems, along with other higher-order skills.

Taking a pragmatic view, the students saw the academic program in relationship to their own career aspirations and as such tended to have a narrow focus toward the academic curriculum. The students identified a number of areas in the curriculum where they felt that changes should be instituted. These areas included academic work load, scheduling of courses, career options within the program, and the sport and activity courses.

Work-Term Experiences

This section of the chapter presents several of the common themes relative to the work-term experiences of the students who were interviewed for the study. The themes highlighted here include students' perceptions of the value of the work terms, interpersonal relationships, and work-term challenges and obstacles.

Students' Perceptions of the Value of Work-Term Experiences

When they were asked to describe their work-term experiences, the vast majority of students indicated that overall work term experience was very rewarding both in terms of the practical experience as well as competencies acquired. This is evident from the following excerpts from student interviews:

> I think the work-term experience allows you to apply what you've learned in academic courses into your job, but more than that I think it builds confidence. Now that I'm finishing up and looking for a job, if I never had a work-term experience behind me, I wouldn't know what I could do. I had a work term over in Scotland, and until I went there I wouldn't have dreamed of going anywhere else in Canada or any other part of the world to work. And now, since I've been to Scotland for a work term, the sky's the limit. I'd go anywhere now.

> I enjoyed my work terms a great deal . . . for different reasons. I found it challenging. The work term I had in Scotland was great! It was difficult being alone, but I got the chance for some hands-on teaching.

> I enjoyed all my work terms, even though there was one situation where I didn't get along with a staff member very well, which took away from the . . . a bit, but I enjoyed what I was doing. What I really liked was that it gave you a break from the school subjects, the academic stuff. You are able to switch up and go . . . , and you don't go through that kind of burnout that many people go through when they're doing five courses, five courses. five courses.

> I don't think you realize how beneficial the work term actually is until you sit down and think about it. You've done it, it's over, and you sit down and say, "Well, what did I really learn? Did it teach me anything new in terms of physical education." You don't know until you actually think about it. That first work term at the Y really put me on track.

> I think the work terms were most valuable overall because they sort of said, "Okay, now this academic training that I've got I'm applying to a specific situation." After the work term is over I can go back to the academic semester and say, "Now, how can I improve on what I just did?" So they sort of work hand in hand.

> I enjoyed all my work terms. I enjoyed what I was doing because in every case I got the job I was after. I was very selective. I would start with the top jobs and work my way down, but I often got my first choice, so I was quite happy with my work terms. My placements were where I wanted to be.

At least one student, however, expressed some reservations about the value of the work-term placements:

> My work terms, I can sum up by saying they were just work terms for me; they never provided anything with regards to where I wanted to go in my career plans. There wasn't enough—I don't know if I had bad luck or the timing was off, but I never had a chance to see the jobs that were available. My first one was here, working at the office. I was sort of a program coordinator. I got the job after my first two terms because at the time I didn't know what I was doing, and I wanted to have a work term around here. The next three work terms after that I was hoping to get with physio or be into a . . . training position, but there just weren't enough positions out there. There were two physio jobs I think in our second term, and D got one of them. So I knew after that she would continue [to have work terms] at the physio clinic because they like to keep the same people; it makes it easier for them and their patients. So after that the options just decreased for me, to get . . . jobs that were far away, that I couldn't afford to get to, and there wasn't enough options here in town for me. So personally I didn't get anything—nothing educational.

Another student in the focus group also expressed some discontent with the work terms as useful learning experiences. He summed up his opinion of the work term in this way:

> In my first work term I found it pretty well a waste. I didn't find myself really challenged; I was home on a summer recreation program. It wasn't that challenging; it was no real benefit. I didn't learn very much on my first work term, but my second and third work terms I found a lot more useful.

Overall, even though some students experienced difficulties during their work terms, they perceived them as opportunities to apply knowledge in a practical, work situation. Students often felt the work terms were challenging but that it was a chance to be in a decision making role and to have some hands-on experiences.

Work Term Challenges and Obstacles

For a number of the students the work term was seen initially as an exciting opportunity to travel and to experience working in a variety of settings. But for many of these same students there were periods of stress, isolation, crisis, and ambiguity, along with other difficulties associated with the work term. It is interesting to note, however, that the students, when reflecting upon these experiences during the interviews, came to see them as significant events in the development of a number of personal skills, such as self-reliance, adaptability, and confidence. This is evident in the following exchange between the researcher and two students:

> Researcher: How did you both feel about being so far away from home during these work terms?
>
> Student 1: It was my first experience. At first there was a sense of anxiety, I didn't know where I was. Leaving to go to Scotland I was like, What am I doing here? My first three weeks in Scotland I was going, What do I do now? But now I think the best experience out of it was that I had to overcome that, and once you do, nine chances out of ten it's going to be the best experience you can ever have. That's what increases your communication and confidence, being away by yourself and having to survive . . . and meet people yourself, and not depend on anyone else. You find out what you are capable of doing, and what you are capable of not doing.
>
> Student 2: What doesn't kill you can only make you stronger.
>
> Student 1: Exactly.
>
> Researcher: So what was your impression when you went to Windsor? Was it, "Gee, I'm really on my own here"?

> Student 2: Yeah. My first work term was with the minor soccer program here, and it was great working with kids, but once I got the job in Ontario, I said to myself Okay, now I've got to prove myself because I'm going to meet people that I've only spoken to over the phone. And I ended up living with someone I didn't even know. Basically you have to . . . grow up fast. You're in this little sheltered world, but as soon as you get out on your own you start to understand what it is you can and can't do, and what to try and what not to try.

Often students recalled work terms where their roles were not clearly defined prior to arriving at the placement. They suggested that although these situations may have been challenging, they were also somewhat stressful for them. One particular interview gave the researcher some insights into the kind of situations and experiences that students encounter while on work terms. In this excerpt of the transcript the student reflects on what was considered to be a difficult placement for her:

> Researcher: The Maine work term, that was a summer placement? Tell me a little bit about that. When you say it was very difficult, how difficult a placement was it?
>
> Student: Yeah, well, it was for A. and myself. It was our first work term, and there were a big group of senior students who went with us, so this was their last work term. So we all kinda packed up in the car and went and had all kinds of adventures the whole way through right from day one. We had a car accident on the way, but we all got there.
>
> None of us really knew what to expect. We were all pretty much excited, and so we went. We got there at three o'clock in the morning, and no one else had been there. It was totally not what we had expected, and the [camp administrator] just kinda throws us into a position where, "Oh, here, you're the sports director." She had been given no outline as to what her own job entailed, she didn't know who her own staff was, she didn't know anything and basically got no assistance. She tried to deal with it, but she did have a hard time, so she handed everything to us. And, of course, we had to lean on her through different times, and you just have a lot of things thrown at you, because basically we lived in the camp and lived in the bunkhouses with the children. My second bunk there was myself and another counselor, but between the two of us we had six children. One of them had ADD and one had ADHD and the other one had cerebral palsy—not CP; epilepsy. I ended up. . . .
>
> I worked from 7:00 in the morning. Well, we had breakfast at 7:00, so really it would've been 6:30. You had to get up and make sure all the kids were dressed, had breakfast, then went to all their activities throughout the day with them. During the day there were specific activities, like A. and I coached gymnastics. That was our job title, but then we were

> counselors as well, so then we had to make sure they went to every one of their activities, make sure they went to supper, or make sure they went to their social activities, which could be any number of things. We had to organize different projects that were done throughout the camp. We were supposed to get every second night off, but it didn't always end up that way. And then we had one day off that started at 7:00 in the morning, and we had to be back by 1:00 at night, so that was our time off. We had seven of those out of the ten-week session.
>
> Researcher: So obviously it was somewhat of a difficult placement for you. Would you say you learned a lot from the experience?
>
> Student: Oh, definitely! And if I had my time back I still would've went. I wouldn't have ever changed that, and I would recommend that anybody go.
>
> Researcher: Even though you were in a situation that you weren't familiar with, you weren't aware of your job duties, and as you said, you were just kinda thrown into a position?
>
> Student: We had to deal with it, and I think the fact that we had each other. If we hadn't had each other . . . I would never recommend that one person go by themselves because . . . for us it was frightening in some ways. Most of the time it was a lot of fun.
>
> Researcher: But in the whole mix, now that you look back on it, it was educational?
>
> Student: Oh, yeah; oh, definitely! For us as a group, we went together and we learned a lot. Unfortunately for . . . she looks back on it and says it wasn't a good experience, but for me it was, especially as a first work term.

Other students also spoke of work-term experiences in which their placements were poorly organized and their job responsibilities ill-defined. One student described how she was thrust into an uncertain work-term placement and had to take on much of the responsibility for the overall program:

> Student: My first work term was working as a supervisor in a YMCA pool. It was a great learning experience. But when we first went to the pool it was a complete mess. There was no leadership, the staff were lacking, . . . not working together. There was no one really to administer the staff, the lessons, and everything was just disorganized. Records weren't kept; nothing was filed. So the first thing we did when we got there was, . . . we said, "Well, let's just get some organization," and we talked to the staff. They didn't know who we were, just a bunch of people who came from . . . ; you know, we were young too.
>
> We didn't know anything about pool chemistry. One guy who worked with us who was going to school at Acadia, doing a chemistry

> degree—and if we didn't have him to tell us what to put in the water, well, then we wouldn't have known what to do.
>
> B. also helped us a lot. She really gave us a lot of support in whatever we wanted to do. We needed new equipment, and she got us a new spinal board and everything.
>
> Researcher: Was B. your work-term supervisor?
>
> Student: Yeah, but there was no one really over us. The three of us were on the same job level at the pool; we were responsible for the pool staff. So what we did first was to have a couple of social events, a barbecue and everything, to get to know the staff. We had staff meetings every week, and the day started out with staff training, just getting together and getting to know and have some trust in us. So it went over very well; by the end of the summer the swimming lessons had improved a hundred percent. We got feedback from the parents while we were there. We did a big survey with the parents. We wanted to know what they thought of the instructors, the lessons, and also parent-instructor, child-instructor interaction. We wanted the instructors to go speak to the parents, so that gave us feedback. We had one instructor that wasn't talking to the parents enough, and we let her know that.
>
> Researcher: How would you consider this experience in terms of some of your other workplacements?
>
> Student: Personally I really learned a lot, especially about handling other people, dealing with the public. It was a good experience. But I don't think I would go back and work in a pool setting again. It was—I mean we put in anywhere between 15 hours a day at the beginning, and I didn't know anyone . . . starting off. We did a god job with the aquatics programs, but there were things lacking in the facility. The biggest problem was that when the three of us left to go back to school, they had no one to take over.

Another student revealed that she had mixed emotions about her experiences while on a work-term placement in a private school in Scotland. Nevertheless, while recounting some of these experiences, she maintained that it was a positive experience for her:

> Researcher: How did you get that job?
>
> Student: It was posted, and I just applied and got an interview.
>
> Researcher: You were interviewed over the phone?
>
> Student: No. Actually, there was a school representative over here. I don't know, . . . they usually don't come to—but he was here at the time. So he did the interviews himself and made the recommendations

Researcher: Did you have to arrange your own travel and accommodations?

Student: Yeah. Well, they provided accommodations and meals, and I had to pay for my flights over and back. I didn't go for the money, because they paid us $1,000 and I made about $200 on the whole thing, but the experience was worth it.

Researcher: Tell me about some of your experiences while you were there?

Student: It was a boarding school, so most of the teachers lived at the school along with the physical education teacher. He was what you would call a house master, someone who lives in. One of the difficulties of it was that you—and since I've been home and thought back on it—can you imagine if you never left this place? If you lived and worked under the same roof for three months? You know, you're never getting away. I had a half day off a week, which was difficult; you don't have any time for yourself.

Researcher: You had one half a day off in seven days?

Student: Yes, because you are at a boarding school at—you even had to organize activities for the kids on weekends. So again, it was tough. You couldn't actually leave, go home and do your own thing and relax. I could. I mean, I had a room in the back of the school, but what are you going to do sitting by yourself in a room in the middle of the countryside?

Researcher: So when your work day was over, what did you do to occupy your time?

Student: I would read and finish preparing for the next day. There were periods within a day that I would have an hour or so off to prepare, but it wasn't enough.

Researcher: Once you had your prep done for the next day, would you have to set up equipment?

Student: I probably would, yeah. That was one of the things that was a problem. Actually, a lot of the time I wasn't given much advance notice of what was expected of me, and I would get in class and . . . would say, "Okay, why don't you teach this today?" And I would be like [gives researcher a pained expression], I'm the type of person who would like to prepare, and yes, I would usually be able to come with things from my own experience, but it would have been better if I had time to actually prepare.

Researcher: Why didn't you discuss that earlier in the work term or try to resolve it?

Student: That's probably my own fault, but then again, being on a work term, I was sort of like, don't complain. I thought about that; I know I should have. It didn't happen a whole lot, and later he did recognize that

> I shouldn't be put on the spot and would ask me to prepare something, so then it was fine. But yeah, it was great and stuff.

It appears that the work term, as seen through the eyes of the informants, came to represent much more than merely experiencing the world of work. The variety of experiences ranging from feelings of isolation to a sense of comradeship, from the mundane to the intriguing, from clear job descriptions to poorly articulated roles and responsibilities, all served to represent the ambiguous nature of the workplace for these students. The findings suggest that through these real-life situations the students came to recognize and appreciate many of the skills, attitudes, and behaviors required in the workplace. Just as important to the students was the opportunity to make decisions and to learn through a hands-on approach.

Interpersonal Relationships

Work-term relationships were not as strongly defined as the relationships developed during the academic semester. Nevertheless, oftentimes relationships were cited as one of the factors in determining a successful or unsuccessful work term.

Relationships with supervisors. Relationships with work-term supervisors varied greatly among the students interviewed for this study. Most of the students reported that their supervisors were generally sensitive to their needs; however, the amount of contact, the quality of supervision, and the supervisory styles differed widely from one supervisor to another.

Several of the students who participated in the study indicated that contact with their supervisor was fairly frequent:

> She was very organized, really good with people. If she had a problem, well, she's going to tell you. Her office was just two doors up, so it was nothing for her to walk down and tell us.

> We would meet at the beginning of the week. I was put in charge of the staff myself when I was in Windsor. She said, "I will give you some things that have to be accomplished," and so I had to take care of that and anything else that would happen or come up during the week. Then I would let her know what was going on, so that nothing went wrong.

One student had even closer contact with her supervisor:

> I stayed with the people I worked for. It was a bit of a struggle, but it all worked out. I just basically felt like it was all work. I was always involved, because I lived with my boss, so I couldn't really get away from work. But it was—she was a good boss, very much the boss at work and at home, so it was like that.

Several students in the focus group indicated that their supervisor contact and the amount of feedback received on their progress during their work terms were sometimes inconsistent and infrequent:

> Female voice: I think about whether or not I did a good job. I think it's good if you're constantly told, but a lot of time in my work terms I wasn't quite sure: Am I doing what I'm supposed to be doing? Am I doing a good job? I would rather be told if I'm not doing a good job than continue along, because you don't know unless you are told.
>
> Female voice: And you are really lucky if you get an employer who has the time to deal with, oh, this phys ed co-op student, when it's a bigger operation like at . . . .
>
> Female voice: A lot of the time you are placed in a spot where it's just you.
>
> Female voice: Using . . . as a good example, it was an excellent work term for me. I learned a lot, I got a lot of experience in the fitness field, and I got a lot on my resume. But I mean, for feedback I was never told if I was doing a good job or not. I worked really hard over there, and you get your evaluation back, and it's, like, no more than anything else, because it's so common over there, they have so many work placements that it's just [student gestures with a stamping motion] good, good, good.
>
> Female voice: It's such a turnover rate; students just come and go, come and go, every four months. They put people in there just to get the job done a lot of times.

At least one student suggested that her work-term supervisors were more accessible than professors during the academic semesters:

> I think you learn a lot from your employers as well. Your employers have a lot to do with helping you out, especially if you are having trouble. They help you by saying, "You should have started on this," or "It would

> be wise to start this now," or if something was coming up, "It would be good to get this out of the way," so you're working hand in hand with your supervisor, versus in university, you have no supervisor. If there's a problem it's hard getting in to see a professor when they're busy or when there's 40 other students looking for them.

Relationships with others in the workplace. In terms of their relationships with others during the work term, students reflected on their contact and rapport with co-workers, other students, the public, and university personnel. One student took advantage of staying in residence at a private school to build a strong rapport with those at the work site:

> It was great! It made me feel part of this huge family. There were, like, 100 children, and I got very close to all of them, and the staff as well. That was with the residence support staff, what they call . . . a mother figure. They would do all the cleaning and sort of disciplining.

However, in instances where the work-term student was placed in a superior position or was perceived to have more expertise in a particular area than the regular worker did, tension and conflict would sometimes occur.

One student, when asked to describe the work atmosphere during the work term, recalled a friendly, relaxed environment:

> A lot of times, especially with your co-workers, it's a friendly atmosphere. You usually have a chat about what happened the night before or something. We would often share information, any new developments, things that we had read, communicate back and forth and exchange ideas.

He explained that his relationship with one of his co-workers, however, became somewhat strained during the work term:

> The situation came about because from my perspective she was lacking knowledge in certain areas. I would try to explain in a gentle manner some things that I knew to her and why she was having problems; at least I thought it was a gentle manner. So what would happen then was that she would blow up at me, and then I was like, ooohhh! I would feel frustrated about the whole matter. It became a situation where both of us took a stance. She'd go her way and I'd go mine. Had there been enough time between . . . we probably could've worked something out.

For a number of the students their work term relationships were based more often than not on learning the supervisors style and adapting to that style. As this student pointed out:

> Whatever work term I've had I was in a situation where the employer was new, you sort of got to learn their ways and they got to sort of learn your ways. Gain respect, give respect, things happen so what you do and how you handle the situation is important. You don't want to make things bad for future situations, you know, create a rift between you and your employer.

At least one student had some difficulty with a "go along to get along" philosophy in the student-supervisor relationship:

> Yeah and [supervisor] wasn't the most desirable. You really didn't know where you stood with him. I know there were a few girls who didn't put up with his personality and they were basically told to leave. We had each other so we just kinda put up with it and went on. But there were people who were told OK, you can leave now. Pack your bags and go. And, I mean, we were in a different country. It was kinda scary in that respect. I mean there were girls there from Scotland who could have been told to leave at any moment.

It would seem from the interview data that for students, their work term relationships with supervisors were perceived as having both positive and negative aspects. Some of the negative aspects of the student - supervisor relationship included a lack of feedback and infrequent contact with the students. Positive aspects of the supervisor-student relationship included the supportive, organized, and helpful approach of the supervisor. A general feeling was that the interaction between supervisors and students can be of much benefit to students work term and was one feature of the cooperative program that students suggested needed to be addressed.

Relationships with co-workers. In terms of their relationships with other during the work term, a number of the students reflected on their contact and rapport with co-workers. It appears that some informal peer input and feedback occurs between the student and co-workers during the work term however these interpersonal relationships are not always positive experiences. In fact, relationships could sometimes be a source of conflict and frustration for the student.

In several instances where the work term student was placed in a superior position or was perceived to have more expertise in a particular area than the regular worker, tension and conflict would sometimes occur.

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> A lot of times, especially with your co-workers it's a friendly atmosphere. You usually have a chat about what happened the night before or something. we would often share information, any new developments, things that we had read, communicate back and forth and exchange ideas.

The student went on to explain that his relationship with one of his co-workers, however, did become somewhat strained during the work term:

> The situation came about because from my perspective she was lacking knowledge in certain areas. I would try to explain in a gentle manner, some things that I knew to her and why she was having problems, at least I thought it was a gentle manner. So what would happen then was that she would blow up at me and then I was like, ohhhh. I would feel frustrated about the whole matter. It became a situation where both of us took a stance she'd go her way and I'd go mine. Had there been enough time between, . . . we probably could've worked something out.

Another student also expressed some frustration with the lack of support he received from his co-workers when he had to deal with some behavioral problems while on a work term placement:

> The third work term was my . . . worst experience . . . for me. The staff was not supportive of my actions or was not supportive of the interactions between the kids and myself. They would not back me up in situations where I was left out in the open with regards to saying things around the kids that I could back up; it was just me against the kids.

His reflections on an earlier work term and staff relationships, however, were much more positive:

> Well, for a work term it was great because I got to know the staff. I think I got a foot in the door because of that, and I got to know how the building and school operated. It really helped me.

One student informant was able to take advantage of staying in residence at a private school to build a strong rapport with others during her placement:

> It was great! It made me feel part of this huge family. There were, like, 100 children and I got very close to all of them, and the staff as well. That was with the residence support staff, what they call . . . a mother figure, they do all the cleaning and sort of discipline.

There was very little interview data to suggest that the same collaborative relationships reported during the academic terms existed between students and co-workers at the job site. It appears that for many of the students, the socialization and informal learning processes that go on in the academic semesters do not develop to the same extent in the work term environment.

This section examined briefly two of the more important relationships which exists in the workplace for co-op students. The qualitative data suggests however, that the role of these relationships is not very well formalized during the work term. Yet for many students the successful work term is dependent to a very large extent on establishing partnerships with others in the workplace. It seems apparent that the relationships between students, their supervisors and co-workers during the work term needs to be more clearly articulated and defined in order to take full advantage of what the workplace experience has to offer in so far as developing workplace skills and competencies.

Students' Overall Perceptions of the Benefits of the Cooperative Program

This final section of the qualitative data analysis includes students' assessment of the overall benefits of the cooperative program along with a number of suggestions for new students entering the program.

On the whole the majority of informants who took part in the study commented favorably on the program. This is demonstrated in the following quotations:

> I would like to say, I'm enjoying this program very much. I recommend it to people. If anyone says, you know anything about physical education, gee you got it great. You're doing all these activities. I say yeah, it is and I really enjoy what I'm doing. It is a hard challenging course. Until you try it you don't know. You don't realize what is expected, and there is a fair amount of studying. But I'm glad to see the direction our faculty is going in. I think it's all growing into a good place to be. I'm really proud of being part of this school now.

Another student reinforced this opinion of the overall positive benefits of the program:

> I would recommend Co-op over anything I've done up to this point, by far. . . . I just found that with the academic program and the work term to me that's an immense benefit, especially if you get the work term you are looking for. So if you are fortunate enough as I was, I think you can take a great deal away from it.

Similarly, another student the offered sentiment that the program had much to offer students in terms of useful experiences:

> I liked the program. There's a lot of benefits offered in the Co-op Program over the non Co-op Program, obviously they are related to the work experience. The experience of job applications, interviews, work placements, that type of thing.

Another student commented that the program gave her an opportunity to practice skills learned during the academic semester:

> Well actually that summer I did the outdoor activities course and I took camping, and hiking and how to find your way outdoors (orienteering), and this is what I did in Scotland, take children on outdoor hikes. So that went hand in hand with what I was teaching.

Still, other students indicated that one of the real benefits of the program was the improvement in their personal skills such as communication.

> I think the program benefits you academically because you get to do a lot of presentations and a lot of public speaking and that got a lot to do with any job especially teaching. Any job, you go out into the work force and it's always communication and public speaking, and I think Phys Ed wise

> more than other faculties we do a lot of public speaking. I know when I do Education courses we do a lot of public speaking. Everyone else is so nervous and I'm like, what's the big deal, I do this every week.

Another saw the benefits of the program as important to personal growth such as the development of self-confidence:

> I feel confident in taking on anything regarding recreation and physical education and teaching. I feel well prepared for that. Going back to the work terms, I think those experiences help me feel even more confident.

Several of the students pointed to the financial benefits of the cooperative program:

> Well for me it helped financially mainly because you are paying as you're learning, and so if you're lucky enough to get a (work term) job where, especially if you are home, you can usually pay for your courses through your Co-op work terms. So you don't—you can almost break even instead of having these student loans that you owe.

Interview respondents also had a number of suggestions for other students just entering the program. One interviewee offered the following piece of advice to entering students:

> Take advantage of an academic advisor. Get yourself an advisor and consult with them regularly. You need to get someone to help you figure out what you want to do with your degree.

This suggestion was echoed by another student who felt that

> the student's advisor during the first year is most important because when I started my degree I heard a lot of negative things about it beforehand and I was like, am I really doing the right thing? My advisor and all the professors were really helpful during that first year.

Another suggested that students just starting out in the program should look to become involved in some of the various activities and committees within the faculty:

> Be involved, become a class representative, get involved in meetings. We have all sorts of different committees and that sort of thing. So even if you are shy, its going to help you if you can get involved, learn something outside the classroom.

Similarly another student recommended that

> you should leave yourself open to become a part of a group, try to get into a group setting. Don't go in as an individual who just wants to get a degree. As well, if you know what you're interested in you should try and tailor your full program to that area. Stick with what you really like.

Students' comments in the interviews suggested that entering students need to develop their time management skills in order to "stay on top" of the academic work load associated with the program:

> If you slack off you're going to get behind. It's a very time consuming degree because of the work load with activities and having to carry a full course load every semester. I think when you come in your first year, you have to realize that there's a lot of work and you have to be on top of it right from the start.

Other students responded that students in the program should try to use their work terms to test out possible career choices:

> Take it more seriously and put more effort into your work term placements. If you want to work in a certain area or position try to get a job there. If a job doesn't come up then go and volunteer. You do whatever it takes, I mean C. is in Calgary working at the Olympic Center and he just sort of went out on his own.

A final suggestion, offered by one student, urged those who might be starting the program to be more open to gaining from all of their various cooperative experiences:

> Try to take something away from every learning experience, whether it be a work term or a particular academic course. Try to find something meaningful for yourself and make it significant. Take something positive from it instead of just letting it pass.

Summary of Qualitative Findings

In summary, the interviews and the focus group discussion were conducted to provide qualitative data describing physical education students' perceptions related to their cooperative experiences. Dominant themes discussed, included academic and work term experiences, relationships, learning strategies, and challenges and obstacles to learning in the co-op program. Overall, the interview data revealed that although students shared similar perceptions about the co-op program, nevertheless, individuals reported many unique experiences which were seen to contribute to their learning.

There is little doubt that the cooperative work term serves to provide powerful experiences that play a role in the development of many career and employability skills of the physical education and recreation students involved in the program.

Summary of Findings

This chapter presented the general findings of the qualitative and quantitative data analysis that were carried out for this exploratory study. The quantitative results were organized and presented in tabular format according to the six major categories identified in the questionnaire. The qualitative findings from the interviews, along with the focus group discussion, were organized, coded and presented in a descriptive format. Themes identified through a content analysis of the qualitative data were considered in relation to the data yielded from the questionnaire. Throughout this chapter students have revealed much about their experiences in the cooperative program. As a group the students described a broad range of experiences and the effect these experiences had on learning in the cooperative program. Results of the survey indicated that the cooperative program provides exceptional opportunities for learning many of the career and employability-related skills required for the workplace. Other findings suggest that students in a cooperative program rely on learning strategies which are both self-initiated and collaborative in nature. Students reported using both formal and informal learning strategies to acquire knowledge and to develop competencies during the program.

CHAPTER 6

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter presents the summary, conclusions and implications of the study. The summary includes an overview of the purpose of the study along with a review of the research design and methodology. In addition, qualitative and quantitative findings are summarized and discussed in relation to the four empirical research questions which served to guide the study. Conclusions from these findings are discussed with respect to a number of generalized perceptions about the cooperative program. Lastly, the implications and recommendations for further research will be discussed.

Purpose of the Study

The purpose of this study was to investigate undergraduate university students' perceptions of learning experiences in a cooperative physical education program. In particular, the following questions served to guide this exploratory research project.

1. What are the views of students regarding the nature of learning that takes place in a cooperative physical education/recreation program?
2. What are the underlying perceptions of students toward the acquisition of professional, career related skills?
3. Do students perceive the work term experiences as opportunities to operationalize their current academic knowledge as well as to gain other knowledge and skills useful to their chosen career?
4. What are the perceptions of students regarding the relationship between formal (academic) learning and informal (workplace) learning?

An examination of the literature related to cooperative physical education programs reveals a limited research base in this area. This study attempts to advance the research, in what has been to date, a largely unexplored field.

Research Design and Methodology

The methodology utilized in this study was descriptive and qualitative in nature. Several methodological approaches were employed in the collection of the data, including a self-completed questionnaire, semistructured interviews and a focus group session. The decision to use a multiple methods approach was undertaken with the conviction that the potential for obtaining quality in the data and for identifying key themes and elements from the study participants outweighed any potential weaknesses in the methodologies used in this study.

A survey instrument was developed from an item pool generated out of information gathered from a number of sources. These included discussions with students from the co-op program, meetings with co-op faculty and staff, and an extensive review of the research literature related to cooperative education. Following a content analysis, a survey instrument was developed. This instrument was designed around five broad categories for consideration in the study: (a) academic perceptions, (b) career and professional considerations, (c) work term experiences, (d) personal and interpersonal relationships, and (e) learning strategies and obstacles.

After revisions and a review by a jury of experts, the survey instrument was pilot tested with a group of recent graduates of the program. This led to some minor formatting and editorial changes to the questionnaire. The final instrument consisted of 126 items. A qualitative aspect was incorporated into the questionnaire through the addition of five open-ended questions.

The individual interviews and focus group discussion involved a semistructured approach. This method tends to be favored for this type of research since it provides both the interviewer and the respondents the opportunity to explore areas and topics not previously planned for. For the purpose of the interviews and the focus group session an interview guide was developed. In this way, the researcher was able to collect data related to the five categories identified and to probe more deeply using open-ended questions in order to obtain a more complete picture of the students' experiences and perceptions. The focus group provided a collaborative element to the research as participants were able to react and interact to other group members. Both the individual interviews and the focus group session produced a rich collection of data which were of great value to the overall research.

Data Collection

The study was descriptive and qualitative in nature and focused on information gathered by two main methods. Firstly, a researcher developed questionnaire was administered to three different co-op classes within the program. A total of 96 students completed the 126 item questionnaire which represented a response rate of 80%. The first five sections of the survey instrument employed a Likert-type scale in which respondents indicated their level of agreement or the level of perceived importance related to the survey items. A sixth section asked students to respond to a number of open-ended questions about their overall perceptions about the program.

Secondly, qualitative interviews were conducted with students in the cooperative program. These semistructured interviews were arranged with individual students as well as with several pairs of students. A third source of data included a focus group session. During the semi-structured interviews, students were asked to describe and reflect on their experiences and perceptions related to their cooperative education program. Validation of the survey instrument was discussed with respect to standardization of survey administration and item consistency. Aspects of rigor involving the qualitative process were discussed in terms of triangulation involving multiple methods of qualitative data gathering.

Data Analysis

Data obtained from the self-completed questionnaire were analyzed using an optical scanning process and SPSS computer software. Through this approach the questionnaire responses were organized into descriptive statistics and presented in frequency tables. The qualitative data from interviews and the focus group were transcribed verbatim. The content analysis followed a systematic procedure of organizing the data into meaningful units of patterns, commonalties and consistent themes. These were organized into a format which loosely complemented a number of the categories contained in the questionnaire.

Summary and Conclusions

Taken together, both the quantitative and qualitative findings served to present and describe an integrated picture of students' perceptions of their cooperative experiences. General findings and conclusions are summarized under the following 5 major categories.

Academic Perceptions

This section investigated the perceptions held by students about their academic learning experiences. Many of the views of students regarding the nature of learning in the cooperative program was identified in this section. Two main categories, generic skills and competencies developed in the academic setting, and the types of activities which engendered the development of these skills, were examined. In general, the survey findings reveal a narrow range of responses with a relatively high level of agreement on questionnaire items in this section. For example, all three groups of students surveyed, felt that their communication and presentation skills were two areas in which the cooperative program was most effective in fostering generic academic skills. Notably, while students in their second year of the program felt that they were able to relate their academic learning to practical situations, neither third year nor fourth year students shared this view. This would imply that senior students may have a more accurate perception of the realities of the workplace and that expectations of the work environment do not in fact encourage applying theory to practice. However, this is speculative and additional research is needed in order to investigate this question further.

Also notable, is the perception among all three groups that the activity courses which comprise a major portion of the academic curriculum do not adequately prepare them to teach a variety of sport and recreation activities. The general lack of satisfaction with this component of the program is surprising in view of the fact that activity courses are designed to expose students to a wide range of school based games and sports activities expressly so they may develop teaching skills. It would appear that providing breadth rather than depth in activity course is perceived to be an ineffective means of developing skills in this area.

The qualitative analysis of academic experiences tended to support the survey findings. Students, when asked about the kinds of skills they learned during the academic semesters, often stressed those skills which would be helpful in the workplace. For example, communication and presentation skills.

Some students commented that even though many important skills were learned during the academic semester, courses were sometimes too theoretical, too artificial, and unrelated to the training required in the workplace.

In reviewing the types of activities and experiences which foster and encourage academic skills, the survey results reveal that all three groups in the study felt that the co-op program required students to take an active rather than passive role in the learning process. Students also agreed that increased responsibility for one's learning was an expectation of the program.

Again, the interview data supported the perception, that students expected to take responsibility for their own learning. Students suggested that informal collaborative strategies and self-initiated endeavors were two of the more common learning activities they used during the academic semesters.

It would appear from the data that students were consistent and generally positive in their perceptions of their academic activities. Senior students were somewhat more critical of the value of their academic experiences in relation to the expectations of the workplace. In the main, however, the majority of students perceived the academic component of the cooperative program as being effective in providing important foundational career related skills.

Career and Professional Perceptions

The second section attempted to ascertain whether the cooperative program was perceived as meeting the career and professional development needs of the students. This section answered, in part, the second major research question in this study. Of the 13 items in this section of the questionnaire all three groups expressed strongest support for the ability of the program to provide the students with the following : (a) opportunities for testing career options, (b) knowledge of the physical education/recreation field, and (c) job search skills.

Students appear to have a practical view of the realities of the workplace. Many students indicated that while employment opportunities were perceived to be enhanced because of their co-op experiences, starting salaries were not likely to be any higher as a result of their involvement in a cooperative degree program.

Work-Term Perceptions

For most students the work terms constituted an essential element in the overall learning experiences of the cooperative program in so far as providing opportunities to develop career related, practical skills. Responses to an open-ended question indicate that over 95% of the students surveyed perceived the work term as the site where most learning occurred. Three of the main areas of the work term investigated in this study were (a) the role of the work term in developing work related skills, (b) the learning opportunities during the work term, and (c) the collaborative aspects of the work term.

Students reported that opportunities to develop leadership skills and strategies for effective management of conflicts and problems in the workplace, were two of the most apparent benefits of the work term experience. Consistent with other findings of the study related to applying theory to practical workplace situations, students expressed less support for the notion that the work term was helpful in bridging the gap between textbook learning and the workplace.

The foremost learning experiences during the work terms were seen to be those related to building self-confidence, those which were perceived as providing useful and useable knowledge, and opportunities which offered unique experiences for students such as placements in foreign countries or in diverse work settings.

Informal discussions with other workers which gave students valuable insights and understanding of the workplace and the informal mentoring roles of placement supervisors were cited as the experiences which were most beneficial in terms of the collaborative aspects of the program. In contrast, communication between university, employer, and student, along with on-site visitations, were not regarded as highly significant collaborative activities.

Personal and Interpersonal Perceptions

In terms of students' personal perceptions associated with the cooperative program, most students described themselves as having a sense of well being and felt they knew their personal strengths and weaknesses. Over 90% of survey respondents indicated they followed a healthy lifestyle and maintained a regular exercise program. As well, the majority of students felt their experiences during the co-op program had improved their confidence, raised their self esteem, and helped them to accept criticism of their work without feeling threatened.

The fact that students in the program appear to be well adjusted individuals, capable of coping with the demands of a busy university schedule may be a result of strong social support networks developed by students during the cooperative program. These interpersonal relationships existed among students and between students, faculty, and co-op staff members. While many of the interpersonal activities occurred on an informal basis, students nevertheless saw this process as essential to achieving success during the demanding academic terms. Thus, students recognized that the benefits of being involved in such activities as study groups and of sharing the work load were linked not only to making a healthy adjustment to university life but to ensuring success in their academic endeavors as well.

Learning Strategies

This section of the survey instrument examined the strategies students employ to acquire learning . The results offered strong evidence that the experiential component was viewed as a valuable learning element in the cooperative program. The four most important learning strategies identified by students were closely related to this experiential element. These included: (a) opportunities to practice and refine skills and techniques, (b) learning through experiences which were considered difficult or challenging, (c) self exploration and discovery strategies, and (d) opportunities for self evaluation. Underlining the perception that learning through experiences was often seen as more valuable than traditional strategies, students typically ranked such strategies as relying on text books and formal writing lowest in importance among the choices presented to them in the survey.

Interview results suggested that students valued self-initiated, collaborative activities such as informal study groups, and developing mentoring relationships with a faculty member. During work terms, networking and interacting with co-workers and supervisors and trial and error strategies were perceived to be the most effective means of learning in the workplace.

Obstacles to Learning

The final section attempted to identify some of the obstacles to learning in the cooperative program. A total of 14 internal and external obstacles were presented to students. 81% of students surveyed indicated that unclear expectations were the biggest obstacle to learning. For the majority of the students, these unclear expectations arose from ill-defined work term roles where job descriptions and duties were sometimes not explicit. Unclear expectations did not appear to be a factor during the academic semesters and not related to academic responsibilities. However, students did identify a lack of resources as one of the major obstacle to learning during the academic terms. This was substantiated during the interviews where students expressed the view that heavy work loads during the academic semesters put a great deal of pressure on available resources such as library holdings and computer facilities.

Open-Ended Questions

Response to the five open-ended questions were content analyzed and summarized in tabular form. Not surprisingly, students reported that overall, the work term provided the most valuable learning experiences. Taken together the five open-ended questions revealed that students' satisfaction of the co-op program was very high. From the perspective of the students, the program consistently provided a quality curriculum which met the practical career related needs as well as the academic needs of the majority of the students.

It is notable that fewer than 25% of the respondents on the open-ended questions took the view that both the academic and work term settings are of equal importance in terms of providing valuable learning experiences for students in the cooperative program. One would surmise that a combination of both academic and workplace experiences would be seen by a far greater number of students as the best possible combination for providing learning opportunities.

Implications for Practice

This study has attempted to investigate, analyze, and describe a wide variety of activities and experiences related to students in a cooperative physical education/recreation program. The study does not pretend to examine in detail the entire range of learning activities and unique experiences found in the program. Rather, it was intended to capture, if only partially, students' perceptions in relation to a number of broad areas of the cooperative curriculum. Several implications for practice are presented in this section.

1. There appears to be little doubt as to the overall value of the students' work terms in providing many unique opportunities to learn within the cooperative program. Students were very pragmatic in describing the value of their work term experiences and in identifying the skills and competencies developed during their work placements. However, beyond a common sense view of these real life experiences, students did not often articulate or reflect on the interrelated objectives of work terms, nor attach any strong theoretical link to these experiences. In order to maximize the educational value of practical experiences there is a need for students to become more aware of the theoretical-practical relationship and to begin to develop strategies for employing theoretical concepts on a level where they will have a greater impact on student learning and enhance students' overall competency in the workplace.

2. A generalization can be made that relationships in co-op represent a significant if not crucial aspect of the program with respect to the acquisition of learning and the subsequent enhancement of self-confidence and self-esteem. For many students managing the dual roles of student/worker can be a difficult and frustrating process. Left to their own devices, students form and maintain informal collaborative relationships which serve to facilitate their learning efforts. As well, it is likely that the various support systems, comprised of

classmates, faculty, and fellow workers have a profound influence on the development of generic academic and workplace skills.

3. The findings of this research suggest that students in a cooperative program use a wide variety of learning strategies including formal and informal learning modes. What is clear from this research is that practical, experiential based learning activities are preferred by students in this cooperative program. An ensurance that all students are made aware of these strategies and understand how they can be used to enhance learning, needs to follow this research project. As such, academic courses need to build in, where possible, experiential activities in order to capitalize on students' preferred learning methods.

4. Students in the cooperative physical education program have high expectations for what will occur during their work terms. Clearly they view the practical experience gained during the work terms as the most important part of the cooperative program. They perceive in particular the work terms as a time for learning about and practicing a wide range of practical skills related to the field of physical education and recreation. This study suggests, however, that students in the program generally employ informal learning strategies during work terms. To enhance work term learning, students need to be encouraged to consciously engage in more formal learning strategies. These might include establishing more formal mentoring relationships with supervisors or by maintaining reflective journals and diaries. Following the work term, students need to document, their experiences through a reflective work term report and to engage in dialogue that demonstrates an awareness of their growth as professionals.

5. Program administrators may also find it useful, in so far as possible, to develop work term experiences that complement and build on the conceptual

and theoretical framework of the overall curriculum. Most students perceive the work term as more than an opportunity to earn a salary. They view the work term as an opportunity to grow and develop as professionals. As a result, work terms need to be well organized in all aspects including, site visitations, supervision, and opportunities for regular, constructive feedback.

6. A number of curriculum issues need to be addressed based on the findings of this study. First, a review of the activity courses should be undertaken to determine their effectiveness in meeting the pedagogical or teaching needs of the students. Second, serious consideration needs to be given to changing or expanding the current curriculum with courses that better reflect the workplace needs of the students, particularly as new career opportunities in the field open up. Third, the co-op placement office needs to have sufficient resources to provide consultation and regular contact, including more on-site visitations, for students on work terms. Faculty could play a role in this effort by serving as student advisors and communicating on a formal basis with their advisees during placements. Fourthly, the academic work load of students needs to be investigated in order to determine whether or not the current work loads are too onerous for students to be able to put in a reasonable effort during their academic semesters.

Implications for Research

Several implications for further research can be identified based on the findings of the present study. Implicit in these recommendations is the need for continual scholarly attention to this form of education and to address the current lack of research information in this area. Such research may serve to guide future curriculum developments in existing programs. As well, as the value of such programs become supported with relevant research other educational institutions may be encouraged to strengthen cooperative programs on their campuses.

1. A follow-up study to the present research could be undertaken to explore in greater depth and detail the impact of blending academic and work related practical experiences and the impact on student learning in a cooperative program. Other potential areas to investigate might include further examination of learner needs within the program both in terms of the academic and intellectual growth and career related growth. Further, an evaluation study of the overall curriculum could be undertaken to determine more specifically what students learn, where they learn, and what strategies are most effective for learning in the cooperative program. While the research reported here is from a single physical education cooperative program, it may provide some baseline information to enable others to begin to do more longitudinal studies related to similar experiential based education programs.

2. Comparative studies could be initiated using research methods similar to the current study to substantiate the perceptions of students enrolled in other faculties with cooperative programs. Such studies might examine differences and similarities of cooperative experiences in various disciplines as they pertain to the major questions explored in this study. As well, comparative studies of other university physical education/recreation programs would be valuable in determining the extent to which the findings from this research project can be generalizable.

3. Responsibility for providing genuine learning opportunities in a cooperative program is an obligation of the academic institution and the various work term employers. How this effort is shared throughout the co-op experience needs to be examined. This study revealed that the roles of those involved with respect to such areas as mentoring and other collaborative activities between

employers, faculty, co-op staff, and students were not very well defined. Research initiatives in this area might produce strategies to strengthen this aspect of the program.

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Appendix A

Exhibit of Interview Questions

Appendix

Exhibit of Interview Questions

1. Describe your overall assessment of your cooperative program experiences
2. What particular aspects of the program make it educationally rewarding for you?
3. What do you feel you gain most from being involved in a cooperative physical education program?
4. What do you perceive as some of the more challenging aspects of the co-op experience?
5. What personal skills, for example, time management, self confidence, do you feel are developed through the cooperative program?
6. Describe the types of learning strategies you typically use in order to acquire knowledge and competencies in (a) the academic setting, and (b) the work environment.
7. In terms of cognitive skills, for example, problem solving, critical thinking, which ones do you feel you have developed as a result of the co-op program?
8. What experiences do you perceive as being the most valuable to you in the development of your career goals?
9. Do you feel the learning and knowledge you acquired through work term experiences will be valuable to you in the real workplace?
10. During the work terms how useful was the theoretical, academic learning from your courses to you in the work situation?
11. What do you perceive as some of the barriers to learning in the cooperative program?

12. Do you feel that your co-op placements were relevant to the area in which you wish to pursue as a career path?
13. If you could have changed your program of study in any way, what would you have done differently?
14. Would you recommend the cooperative program to other students? Why? Why not?
15. What insights or advice would you give someone entering the program?
16. If the cooperative program had been optional and you were able to start over again, would you still choose a co-op program?
17. Is there anything else you would like to tell me about your experiences in the co-op program?

Appendix B

Student Questionnaire—Co-op Perceptions

STUDENT QUESTIONNAIRE—CO-OP PERCEPTIONS

Perception is the process whereby we interpret things in the world around us in order to give understanding and meaning to our lives.

This questionnaire has been developed to obtain information on students' current perceptions toward their cooperative education experiences. It seeks to identify the nature of learning in the cooperative program, in particular, what is learned, how is it learned, and what experiences facilitate learning.

How to Complete the Questionnaire

Please read each item and select the letter that best represents your perceptions about co-op. Indicate the extent of agreement or disagreement with each statement by filling in the circle on the answer sheet that best describes how you **actually** feel not how you think you **should** feel. (A) Strongly Agree, (B) Agree, (C) Neutral, (D) Disagree, (E) Strongly Disagree

To ensure confidentiality, do not sign this questionnaire or the answer sheet

Section A

Academic Perceptions (AP)

	SA	A	N	D	SD
1. The co-op program has encouraged me to develop effective listening skills.	(A)	(B)	(C)	(D)	(E)
2. I can relate my academic learning to practical situations.	(A)	(B)	(C)	(D)	(E)
3. The activity courses provide me with the necessary skills to teach a variety of sport and recreation activities.	(A)	(B)	(C)	(D)	(E)
4. My communication skills have improved because of my co-op experiences.	(A)	(B)	(C)	(D)	(E)
5. I have an understanding of self-evaluation and its role in the co-op learning process.	(A)	(B)	(C)	(D)	(E)
6. Academic courses provide opportunities for self-directed learning activities.	(A)	(B)	(C)	(D)	(E)
7. The academic semesters provide opportunities for sharing co-op experiences.	(A)	(B)	(C)	(D)	(E)
8. My skills in writing assignments and reports have improved throughout the program.	(A)	(B)	(C)	(D)	(E)
9. The academic courses foster learning by encouraging reflective thinking.	(A)	(B)	(C)	(D)	(E)
10. I am motivated towards attainable, academic goals.	(A)	(B)	(C)	(D)	(E)
11. The co-op program requires a more active role rather than a passive role in the learning process.	(A)	(B)	(C)	(D)	(E)

	SA	A	N	D	SD
12. I am given opportunities to improve my oral presentation skills.	(A)	(B)	(C)	(D)	(E)
13. The co-op program fosters a positive learning environment.	(A)	(B)	(C)	(D)	(E)
14. The co-op experience has improved my problem solving skills.	(A)	(B)	(C)	(D)	(E)
15. I am familiar with the learning strategies that work best for me.	(A)	(B)	(C)	(D)	(E)
16. The curriculum is based on a learner-centered approach.	(A)	(B)	(C)	(D)	(E)
17. Most academic courses emphasize participation and learning through an experiential process.	(A)	(B)	(C)	(D)	(E)
18. I am expected to assume increasing responsibility for my learning throughout the program.	(A)	(B)	(C)	(D)	(E)
19. The program fosters decision making based on a problem solving approach.	(A)	(B)	(C)	(D)	(E)
20. Academic courses often include learning strategies which capitalize on students' previous experiences.	(A)	(B)	(C)	(D)	(E)
21. The program facilities provide an inviting climate for learning.	(A)	(B)	(C)	(D)	(E)
22. I have learned to take a more creative approach toward my academic work.	(A)	(B)	(C)	(D)	(E)
23. I am expected to be familiar with and use a variety of resources, technologies and equipment.	(A)	(B)	(C)	(D)	(E)
24. The co-op program emphasizes a progressive mastery approach toward the development of academic competencies.	(A)	(B)	(C)	(D)	(E)
25. Academic courses become more meaningful upon returning to the classroom following a work term.	(A)	(B)	(C)	(D)	(E)

Section B
Career and Professional Perceptions (CP)

	SA	A	N	D	SD
26. The co-op program provides opportunities for testing career options.	(A)	(B)	(C)	(D)	(E)
27. The co-op program enhances my job search skills.	(A)	(B)	(C)	(D)	(E)
28. The co-op program meets my needs related to career development.	(A)	(B)	(C)	(D)	(E)
29. The co-op program improves my chances of obtaining employment upon graduation.	(A)	(B)	(C)	(D)	(E)
30. I am more likely to gain employment in my chosen area, (i.e. teaching, recreation) than a non co-op graduate in the same area.	(A)	(B)	(C)	(D)	(E)
31. The co-op program encourages one to develop entrepreneurial skills.	(A)	(B)	(C)	(D)	(

	SA	A	N	D	SD
32. I am learning a great deal about the physical education/ recreation field.	(A)	(B)	(C)	(D)	(E)
33. The co-op program fosters an understanding of the realities of the work place in physical education/recreation.	(A)	(B)	(C)	(D)	(E)
34. I feel I will earn a higher starting salary because of my experiences in the co-op program.	(A)	(B)	(C)	(D)	(E)
35. I feel I will make a number of prospective employer contacts through the co-op program.	(A)	(B)	(C)	(D)	(E)
36. The co-op program has confirmed my decision to choose a career in physical education/recreation.	(A)	(B)	(C)	(D)	(E)
37. Because of my co-op experiences I have a wider choice of career options in physical education/recreation.	(A)	(B)	(C)	(D)	(E)
38. I have a realistic understanding of the professional issues confronting the field.	(A)	(B)	(C)	(D)	(E)

SECTION C
Work Term Perceptions (WT)

	SA	A	N	D	SD
39. The work term environment is conducive to learning practical, job related skills.	(A)	(B)	(C)	(D)	(E)
40. The work term helps make academic courses more relevant for me.	(A)	(B)	(C)	(D)	(E)
41. I feel that the work term is an opportunity to gain new knowledge outside the university classroom.	(A)	(B)	(C)	(D)	(E)
42. I feel I am able to develop leadership skills through the work term experience.	(A)	(B)	(C)	(D)	(E)
43. Work term experiences provide me with alternative ways of thinking about a problem or issue.	(A)	(B)	(C)	(D)	(E)
44. I feel the work term provides quality work experiences.	(A)	(B)	(C)	(D)	(E)
45. A work term which provide opportunities for students to experience living in other places can also provide unique learning situations.	(A)	(B)	(C)	(D)	(E)
46. The work term offer students a chance to model professional practices.	(A)	(B)	(C)	(D)	(E)
47. I feel I am productive and useful to the employer during my work term.	(A)	(B)	(C)	(D)	(E)
48. I feel that work related skills are often learned through trial and error.	(A)	(B)	(C)	(D)	(E)

	SA	A	N	D	SD
49. Informal discussions with other workers during work term provide valuable insights and understanding of the work place.	(A)	(B)	(C)	(D)	(E)
50. I feel prepared to enter work term environments which may be unfamiliar to me.	(A)	(B)	(C)	(D)	(E)
51. I receive regular feedback on my performance during the work term.	(A)	(B)	(C)	(D)	(E)
52. Communication between university, employer, and student during the work term contribute to learning experiences.	(A)	(B)	(C)	(D)	(E)
53. On-site visits during work terms help resolve any problems or concerns I may be experiencing.	(A)	(B)	(C)	(D)	(E)
54. The work term gives me a chance to refine many of the skills learned during the academic terms.	(A)	(B)	(C)	(D)	(E)
55. My assigned working hours were reasonable for a student on a work term.	(A)	(B)	(C)	(D)	(E)
56. I had a clear understanding of the job description and duties of my work term positions.	(A)	(B)	(C)	(D)	(E)
57. I feel the work term report is a self-reflective process.	(A)	(B)	(C)	(D)	(E)
58. The work term reports are beneficial to the overall learning process in cooperative education.	(A)	(B)	(C)	(D)	(E)
59. The multiple role of being a student/worker has taught me the importance of being organized.	(A)	(B)	(C)	(D)	(E)
60. I feel I have a role to play in promoting the image of the program while on work term.	(A)	(B)	(C)	(D)	(E)
61. My work term supervisors have been useful to me in a mentoring role.	(A)	(B)	(C)	(D)	(E)
62. The work term helped me bridge the gap between the textbook learning and the real world of work.	(A)	(B)	(C)	(D)	(E)
63. I feel the work term experience improved my ability to use a team-work approach to achieve results.	(A)	(B)	(C)	(D)	(E)
64. I feel confident working on tasks unsupervised.	(A)	(B)	(C)	(D)	(E)
65. I feel I can competently deal with situations requiring conflict resolution skills.	(A)	(B)	(C)	(D)	(E)

SECTION D
PERSONAL AND INTERPERSONAL PERCEPTIONS (IP)

	SA	A	N	D	SD
66. I feel the co-op experience has given me more confidence in my ability to succeed in the program.	(A)	(B)	(C)	(D)	(E)
67. I know where to get help with any problems I may have.	(A)	(B)	(C)	(D)	(E)
68. I feel my experience in the co-op program has raised my self-esteem.	(A)	(B)	(C)	(D)	(E)
69. I get along well with my classmates.	(A)	(B)	(C)	(D)	(E)
70. I take time to exercise and work out regularly.	(A)	(B)	(C)	(D)	(E)
71. I can rely on the support of close friends if I need to.	(A)	(B)	(C)	(D)	(E)
72. I am motivated to do well in the program.	(A)	(B)	(C)	(D)	(E)
73. I feel I know my strengths and weaknesses.	(A)	(B)	(C)	(D)	(E)
74. I regularly attend social functions with friends and classmates.	(A)	(B)	(C)	(D)	(E
75. I look forward to meeting and mixing with new people.	(A)	(B)	(C)	(D)	(E)
76. I maintain a healthy and active lifestyle.	(A)	(B)	(C)	(D)	(E)
77. I feel I am able to organize my time effectively.	(A)	(B)	(C)	(D)	(E)
78. The co-op program encourages students to develop self-evaluation skills.	(A)	(B)	(C)	(D)	(E)
79. I have a sense of well being and belonging.	(A)	(B)	(C)	(D)	(E)
80. Being on my own during work terms has helped me develop self-reliance.	(A)	(B)	(C)	(D)	(E)
81. I feel I have a more tolerant outlook on things because of my co-op experiences.	(A)	(B)	(C)	(D)	(E)
82. I can take criticism of my work without feeling a threat to my self-esteem.	(A)	(B)	(C)	(D)	(E)

SECTION E

LEARNING STRATEGIES (LS)

Please indicate the level of importance of the following learning strategies to you in acquiring new knowledge and skills during the cooperative program.

	Very important	Somewhat important	Not very important	Not at all important
83. Reflecting upon my experiences in co-op.	(A)	(B)	(C)	(D)
84. Critical self-evaluation of my actions.	(A)	(B)	(C)	(D)
85. In-class group discussions.	(A)	(B)	(C)	(D)
86. Learning through trial and error.	(A)	(B)	(C)	(D)
87. Relying on insights that occurred earlier in my life.	(A)	(B)	(C)	(D)
88. Working with a mentor or "significant other".	(A)	(B)	(C)	(D)
89. Informal exchanges and discussions with peers.	(A)	(B)	(C)	(D)
90. Self initiated exploration and discovery.	(A)	(B)	(C)	(D)
91. Practice and refinement of skills and techniques.	(A)	(B)	(C)	(D)
92. Experiential learning from group field-trips.	(A)	(B)	(C)	(D)
93. Journal and report writing.	(A)	(B)	(C)	(D)
94. From experiences that were initially seen as distressful.	(A)	(B)	(C)	(D)
95. Observation of day-to-day work situations.	(A)	(B)	(C)	(D)
96. Attending training seminars and clinics.	(A)	(B)	(C)	(D)
97. Traditional classroom teaching/learning methods.	(A)	(B)	(C)	(D)
98. Reading required texts, manuals, documents, etc.	(A)	(B)	(C)	(D)
99. From events that were difficult or challenging.	(A)	(B)	(C)	(D)
100. Others? List and rank here. _______________	(A)	(B)	(C)	(D)

SECTION F

LEARNING OBSTACLES (LO)

Please indicate how often the following conditions may have prevented or deterred you from acquiring new knowledge and skills during the cooperative program.

	Always	Most of the time	Sometimes	Never
101. Negative past experiences.	(A)	(B)	(C)	(D)
102. Lack of self confidence.	(A)	(B)	(C)	(D)
103. Fear of failure.	(A)	(B)	(C)	(D)
104. Lack of motivation.	(A)	(B)	(C)	(D)
105. Inadequate learning resources.	(A)	(B)	(C)	(D)
106. Unclear expectations.	(A)	(B)	(C)	(D)
107. Lack of physical skills and abilities.	(A)	(B)	(C)	(D)
108. Lack of preparation time.	(A)	(B)	(C)	(D)

109. Outside pressures, i.e. job, family.	(A)	(B)	(C)	(D)
110. Lack of recreation/sport background.	(A)	(B)	(C)	(D)
111. Pressures of meeting deadlines.	(A)	(B)	(C)	(D)
112. Lack of financial resources.	(A)	(B)	(C)	(D)
113. Too heavy a course load.	(A)	(B)	(C)	(D)
114. Personal injury or illness.	(A)	(B)	(C)	(D)
115. Others? List and rank here. ___________	(A)	(B)	(C)	(D)

Section G

General Information

Please provide the following general information regarding your status in the Co-op Program.

116. The first 2 digits of your student number. (A) 96 (B) 95 (C) 94 (D) 93 (E) other

117. Years in co-op program (Including current year) (A) 1 (B) 2 (C) 3 (D) 4 (E) 5

118. Male _(A)__ Female _(B)__

119. Approximate age (A) 19-20 (B) 21-22 (C) 23-24 (D) 25-26 (E) 27 or older

120. Approximate current GPA (A) 4.0 (B) 3.5 (C) 3.0 (D) 2.5 (E) 2.0

121. Number of work terms completed (A) 1 (B) 2 (C) 3 (D) 4

122. During the academic semesters do you hold a part-time job?

(A) always (B) sometimes (C) never

123. If you do work, how many hours? (A) 0-8 (B) 9-16 (C) 17-24 (D) 25-32 (E) 33 or more

124. Type of work term positions held. Fill all circles that apply.

(A) teaching (B) sport & recreation (C) fitness (D) health care (E) other

125. Average work term weekly salary.

(A) less than $150 (B) $150-200 (C) $201-300 (D) $301-400 (E) more than $400

125. Average number of hours worked per week.
(A) less than 10 (B) 11-20 (C) 21-30 (D) 31-40 (E) more than 40

SECTION H

Open-ended Questions (OQ)

Please respond to the following questions directly on this page. Feel free to use the back of the page if you need more space to answer the questions.

1. What do you feel are the most valuable learning experiences of your involvement in the cooperative physical education/recreation program?

2. Where do you feel the most valuable learning takes place in the cooperative physical education/recreation program?

3. What strategies do you most often use to acquire new knowledge and to learn new skills during the co-op program?

4. If you had the option of enrolling in cooperative program or a non co-op program, which one would you have chosen?

Why?

5. Would you recommend the co-op program to others?

Why?

Thank you for your contribution to the research. I appreciate your time and honesty in completing this questionnaire! The information you provide will be used to assist in the design of future programs.